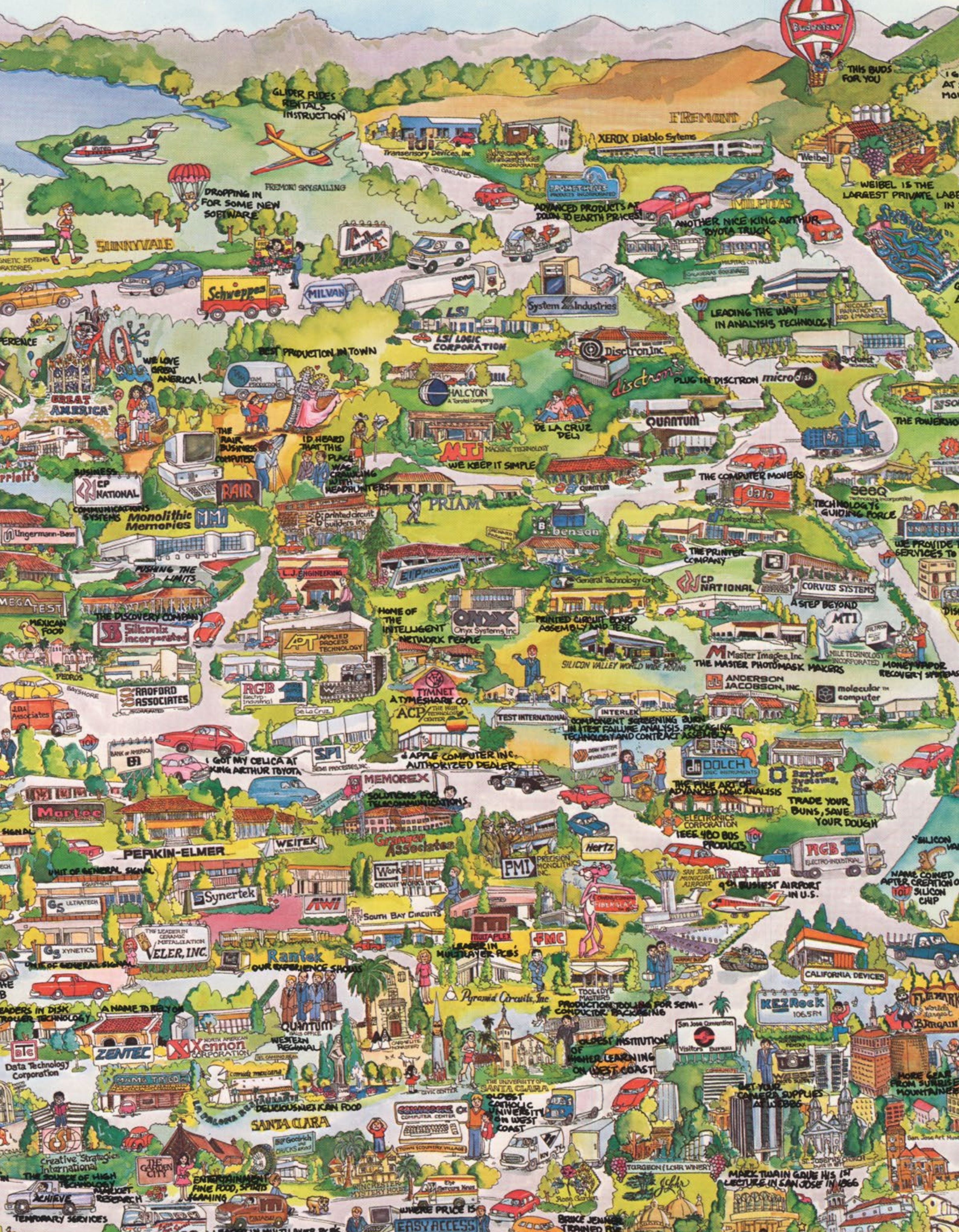
Budweiser
THIS BUDS FOR YOU
GLIDER RIDES RENTALS INSTRUCTION
FREMONT
Transensory Devices, Inc
XEROX Diablo Sytems
Weibel
TO OAKLAND
WEIBEL IS THE LARGEST PRIVATE LABE
DROPPING IN FOR SOME NEW SOFTWARE
FREMONT SKYSAILING
PROMETHEUS PRODUCTS INCORPORATED
ADVANCED PRODUCTS AT DOWN TO EARTH PRICES!
MILPITAS
ANOTHER NICE KING ARTHUR TOYOTA TRUCK
SUNNYVALE
Schweppes
MILVAN
System Industries
LSI
LSI LOGIC CORPORATION
LEADING THE WAY IN ANALYSIS TECHNOLOGY
NICOLET PARATRONICS
BEST PRODUCTION IN TOWN
WE LOVE GREAT AMERICA!
GREAT AMERICA
Disctron Inc
disctron
PLUG IN DISCTRON
microdisk
SyQuest
HALCYON A Tonetel Company
THE RAIR BUSINESS COMPUTER
I'D HEARD THAT THIS PLACE WAS CRAWLING WITH HEADHUNTERS
DE LA CRUZ DELI
QUANTUM
THE POWERHO
MTI MACHINE TECHNOLOGY
WE KEEP IT SIMPLE
THE COMPUTER MOVERS
QUANTUM
BUSINESS
CP NATIONAL
COMMUNICATIONS SYSTEMS
RAIR
PRIAM
seeq
data
TECHNOLOGY'S GUIDING FORCE
Monolithic Memories MMI
Ungermann-Bass
printed circuit builders inc
benson
Dataproducts
WE PROVIDE T SERVICES TO
THE PRINTER COMPANY
PUSHING THE LIMITS
L.J. ENGINEERING
EIP MICROWAVE
General Technology Corp
CP NATIONAL
CORVUS SYSTEMS
MEGATEST
MEXICAN FOOD
THE DISCOVERY COMPANY
Siliconix incorporated
HOME OF THE INTELLIGENT NETWORK PEOPLE
ONYX Onyx Systems Inc
APT APPLIED PROCESS TECHNOLOGY
PRINTED CIRCUIT BOARD ASSEMBLY AND TEST
A STEP BEYOND
MTI
SILICON VALLEY WORLD WIDE MOVING
Master Images, Inc. THE MASTER PHOTOMASK MAKERS
NILE TECHNOLOGY INCORPORATED
MONEY VAPOR RECOVERY SYSTEMS
PEDROS
BAYSHORE
RADFORD ASSOCIATES INCORPORATED
RGB Electro-Industrial
TYMNET A TYMESHARE CO.
ACP THE HIGH TECHNOLOGY CENTER
De La Cruz
ANDERSON JACOBSON, INC.
molecular computer
J.B.A. Associates
INTERLEK
TEST INTERNATIONAL
COMPONENT SCREENING BURN IN TEST FAILURE ANALYSIS, PACKAGING TECHNOLOGY AND CONTRACT ASSEMBLY
BANK OF AMERICA
I GOT MY CELICA AT KING ARTHUR TOYOTA
SPI SEMI PROCESSES, INC.
APPLE COMPUTER INC. AUTHORIZED DEALER
DOLCH LOGIC INSTRUMENTS
Barber Systems, Inc.
MEMOREX
SOLUTIONS FOR TELECOMMUNICATIONS
THE FINE ART OF ADVANCED LOGIC ANALISIS
TRADE YOUR BUNS, SAVE YOUR DOUGH
Martec
SIGNAL
ICS ELECTRONICS CORPORATION
IEEE 488 BUS PRODUCTS
Granger Associates
Hertz
PERKIN-ELMER
WEITEK
PMI PRECISION MONOLITHICS INC.
RGB ELECTRO-INDUSTRIAL
SILICON VALLEY
NAME COINED AFTER CREATION OF SILICON CHIP
UNIT OF GENERAL SIGNAL
Works CIRCUIT WORKS INC.
SAN JOSE MUNICIPAL AIRPORT
Hyatt Hotel
9th BUSIEST AIRPORT IN U.S.
ULTRATECH
Synertek
AWI
South Bay Circuits
FIBERGLASS
THE LEADER IN CERAMIC METALIZATION VELER, INC.
XYNETICS
Rantek
OUR EXPERIENCE SHOWS
MULTIPLEX
LEADER IN MULTILAYER PCB'S
FMC
UNIT OF GENERAL SIGNAL
CALIFORNIA DEVICES
LEADERS IN DISK CONTROLLER TECHNOLOGY
A NAME TO RELY ON
Pyramid Circuits, Inc
TOOL & DYE MASTERS
PRODUCTION TOOLING FOR SEMI-CONDUCTOR PACKAGING
KEZ Rock 106.5 FM
FLEA MARKET World's Largest BARGAIN
QUANTUM SALES OFFICE
WESTERN REGIONAL
DTC Data Technology Corporation
ZENTEC
Xennon NORTH AMERICAN CORPORATION
EL CAMINO REAL
San Jose Convention Visitors Bureau
OLDEST INSTITUTION OF HIGHER LEARNING ON WEST COAST
MAMA TRIED
LA PALOMA RESTAURANTE
DELICIOUS MEXICAN FOOD
CIVIC CENTER
THE UNIVERSITY OF SANTA CLARA
OLDEST CATHOLIC UNIVERSITY ON WEST COAST
GET YOUR CAMERA SUPPLIES AT KOBBS
MORE GEAR FROM SUNRISE MOUNTAINEER
SANTA CLARA
COMPUTER CENTER
BF Goodrich
creative strategies international
THE SOURCE OF HIGH TECHNOLOGY MARKET RESEARCH
THE GARDEN CITY
ENTERTAINMENT FINE FOOD, SPIRITS & GAMING
TOWN & COUNTRY VILLAGE
TURGEON / LOHR WINERY
J. Lohr
Rose Garden
MARK TWAIN GAVE HIS 1ST LECTURE IN SAN JOSE IN 1866
ST. JOSEPH'S CHURCH
San Jose Art Museum
ACHIEVE
TEMPORARY SERVICES
WINCHESTER MYSTERY HOUSE
The Mercury News
WHERE PRICE IS
EASY ACCESS
BRUCE JENNER TRAINED
LEADER IN MULTILAYER PCB'S

XX marks the spot - or Women with Latitude

1	Seile	£3,500
2	Haussard - Virginia	£6,000
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4	Rocque - London	£15,000
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10	Steel	£2,000
11	Dopter	£5,000
12	W[ebber]	£3,500
13	Harvey	£6,000
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15	Mayer	£5,500
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XX Marks the Spot - or Women with Latitude

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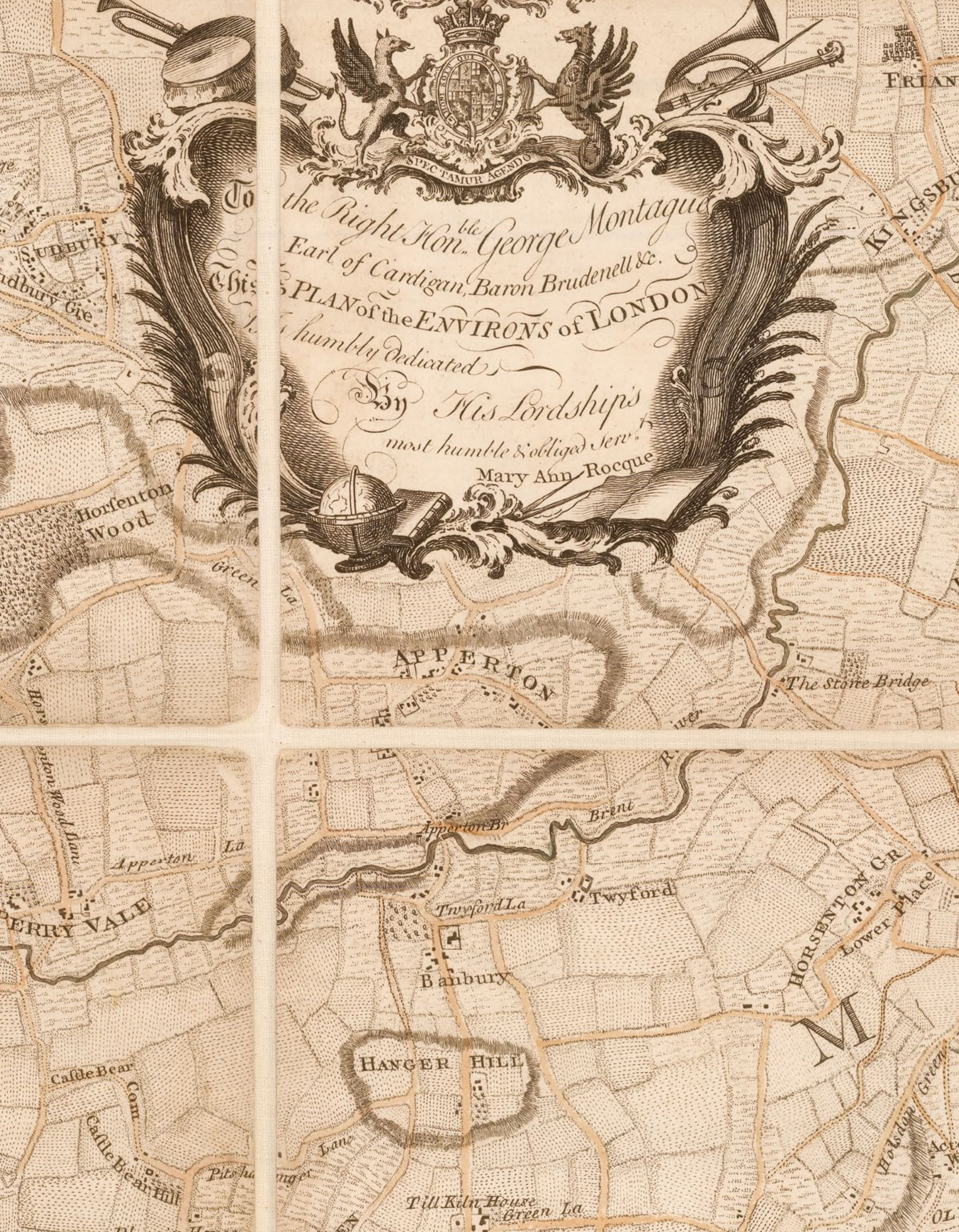

SPECTAMUR AGENDO
To the Right Hon.ble George Montague
Earl of Cardigan, Baron Brudenell &c.
This PLAN of the ENVIRONS of LONDON
Is humbly dedicated
By His Lordship's
most humble & obliged Serv.t
Mary Ann Rocque
SUDBURY
Sudbury Gre
Horsenton Wood
Green La
APPERTON
The Stone Bridge
KINGSB
FRIAN
River
Brent
Apperton Br
Horsenton Wood Lane
Apperton La
PERRY VALE
Twyford La
Twyford
Banbury
HORSENTON GR
Lower Place
M
HANGER HILL
Castle Bear Com
Castle Bear Hill
Lane
Pits hanger
Till Kiln House
Green La
Holsdon Green
Act

Introduction

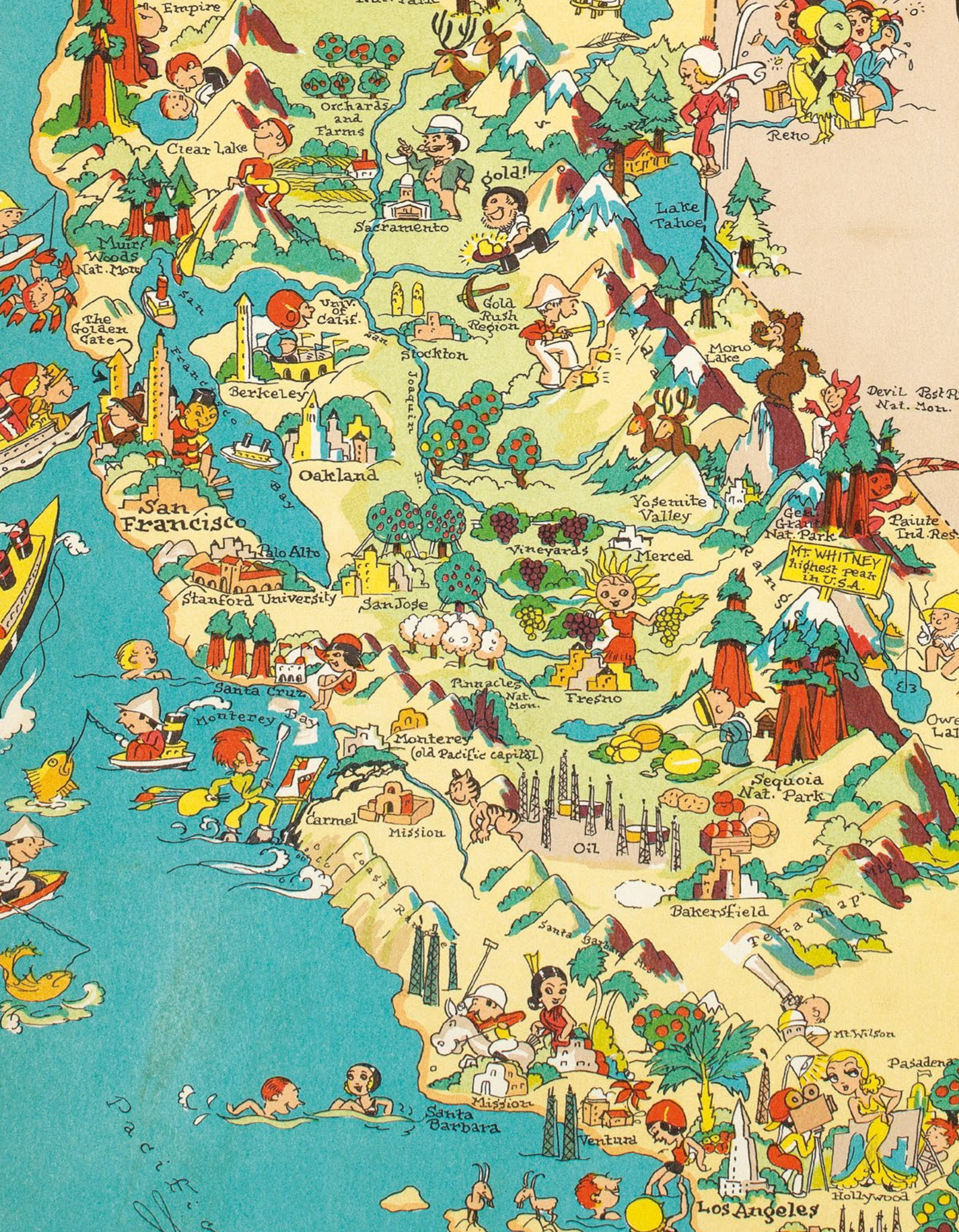
Virginia Woolf said in 'A Room of One's Own' (1929) that "Anonymous was a woman". Historically, and even now, a woman's direct expressions have often been inhibited by the imposition of a plethora of revolving social dictates: including, but in no way limited to, access to education, ownership of property, freedom of movement, and the right to vote. This means that the visibility of women as agents of action in the historical paper trail is limited. "Some women – almost exclusively those of an elite class – managed to negotiate roles for themselves within systems structured to deny them as much, but doing so required them to circumvent the normal conduits to power and manifest their presence by much less visible means than those afforded men. How can we come to know women for whom there are scarce and scattered traces of personal experience, and for whom primary documentation is dominated by men's perspective? Where do we look for these women...?" (Postlewate, 'Women and Community in Early Modern Europe', 2018).

Since early modern times, the artistic, printing and publishing world, including cartography, has on occasion, provided women with a means of agency, expression, and visibility. The women cartographers in this selection have, against the odds, been able to publicly claim their work.

Since feudal times, in Europe, widowhood sometimes allowed women to inherit a degree of their husband's property, and to continue their business. Anne Seile, Mary Ann Rocque, Selina Hall, and Penelope Steele, all produced their best-known work, under the respected estate of widowhood - even though they had been working as, at least, their husband's assistants for many years previously.

For women of the gentler classes, non-confrontational artistic pursuits, and accomplishments, were positively encouraged and expected. As Mr. Bingley memorably said, via Jane Austen: "A woman must have a thorough knowledge of music, singing, drawing, dancing, all the modern languages, to deserve the word; and besides all this, she must possess a certain something in her air and manner of walking, the tone of her voice, her address and expressions, or the word will be but half deserved". Elizabeth and Marie Catherine Haussard's, engraved cartouches, and "J.B."'s striking maps of North and South America, may well have been founded on crafting skills, but far exceed the expectations of any resident at Pemberly.

Caroline Herschel's exceptional contributions to astronomy began as sisterly duty to her brother William, and extended to her feeding him by hand while he gazed at his Uranus through the telescope, but culminated in her discovery of 8 comets, and her becoming the first woman to have a paper read before the Royal Society.


Empire
Orchards and Farms
Clear Lake
Sacramento
gold!
Reno
Lake Tahoe
Muir Woods Nat. Mon.
The Golden Gate
San Francisco Bay
Univ. of Calif.
Gold Rush Region
Stockton
San Joaquin R.
Berkeley
Oakland
Mono Lake
Devil Post Pi
Nat. Mon.
Sierra Nevada
Yosemite Valley
San Francisco
Palo Alto
Stanford University
San Jose
Vineyards
Merced
Gen. Grant Nat. Park
Paiute Ind. Res.
MT. WHITNEY highest peak in U.S.A.
Range
Santa Cruz
Monterey Bay
Pinnacles Nat. Mon.
Fresno
Monterey (old Pacific capital)
Owe
La
Sequoia Nat. Park
Carmel
Mission
Oil
Coast Range
Bakersfield
Tehachapi Mts.
Santa Barbara Mts.
Mt. Wilson
Pasadena
Mission
Santa Barbara
Ventura
Hollywood
Los Angeles
Pacific

In the nineteenth century, women for whom the marriage bell had not tolled, were permitted the role of companion, governess, and educator. Catherine Mary Webber, Lilian Lancaster, and Hester Wagstaff, successfully produced educational games, decorated with light-hearted and whimsical illustrations.

In the twentieth century, necessity become the mother of invention and the unconventional. The Suffrage Movement in the USA adopted many impelling methods to engage the disenfranchised female population: including cartography. The earliest versions of the Suffrage Map were published in 1907 and 1908, by Bertha Knobe, and underwent many iterations, reaching its apotheosis with "The Awakening", a dramatic portrait of Lady Liberty whipping up support as she crosses the Nation, in 'Puck' magazine in 1915.

WWII occupied the male workforce to the extent that women, such as Marie Tharp were able to make an earth-moving contribution of our understanding of plate tectonics; and Gertrude Williams could become an economist and social strategist whose research and writing impacted on the foundation and development of the Welfare State in the United Kingdom from the 1940s.

More recently, and with more latitude, Margaret Anderson, Phyllis Pearsall, and Carol Mendel, were inspired to comprehensively map Barbados, London, and California, by observing a distinct lack of anything currently useful for the independent woman wanting to get about town.

A lady's touch

1 **SEILE, Anne**

Americae Nova Descriptio. Impensis Anae Seile, 1663.

Publication
[London, Printed for Anne Seile ouer against St. Dunstans Church in fleet Streete, 1666].

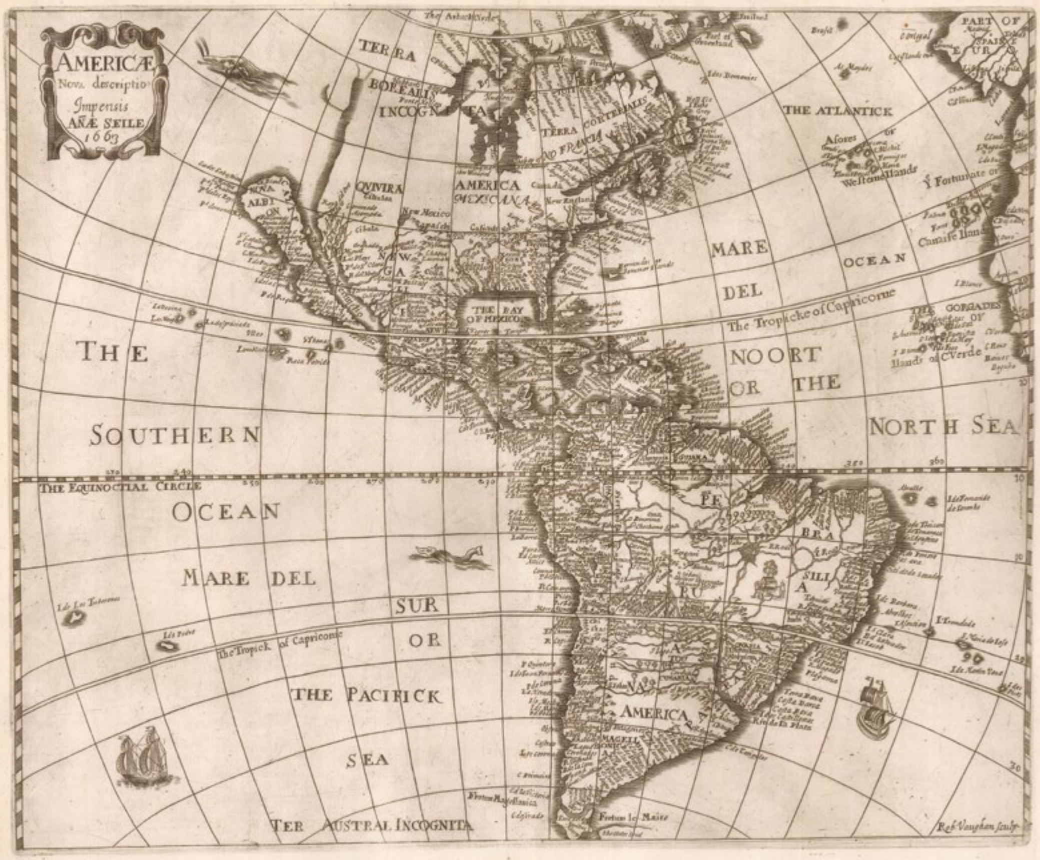
Description
Double-page engraved map.

Dimensions
350 by 420mm (13.75 by 16.5 inches).

References
Burden 379; McLaughlin 35.

One year after her husband's death, Anne Seile instructed the engraver Robert Vaughan to engrave a set of maps of the continents similar to those engraved by her husband for Peter Heylin's 'Cosmographie' in 1652. Siele then issued a third edition of the 'Cosmographie' containing these maps, which have minor geographical revisions, as well as new decorative embellishments.

California is shown as an island, with the Straits of Annian, at which the coastline terminates. Cape Mendocino is shown below the islands St. Clement and Catalina.


AMERICÆ
Nova descriptio
Impensis
AÑÆ SEILE
1663
TERRA BOREALIS INCOGNITA
TERRA CORTEREALIS
NO FRANCIA
QUIVIRA
AMERICA MEXICANA
New England
NOVA ALBION
NEW GALICIA
THE BAY OF MEXICO
THE ATLANTICK OCEAN
Asores or Westernllands
Y Fortunate or Canarie Ilands
GORGADES or Ilands of CVerde
PART OF EUROPE
MARE DEL NOORT OR THE NORTH SEA
The Tropicke of Capricorne
THE SOUTHERN OCEAN
THE EQUINOCTIAL CIRCLE
MARE DEL SUR OR THE PACIFICK SEA
The Tropick of Capricorne
PERU
BRASILIA
AMERICA
MAGELLANICA
Rio de la Plata
Fretum Magellanica
Fretum le Maire
TER AUSTRAL INCOGNITA
30
Rob Vaughan sculp

Fry and Jefferson reduced

2 HAUSSARD, Elizabeth; ROBERT DE VAUGONDY, Gilles

Carte de la Virginie et du Maryland Dressee sur la Grande Carte Angloise de Mr.s Josue Fry et Pierre Jefferson.

Publication
Paris, Par le Sr. Robert de Vaugondy, Geographe ordinaire du Roi, Avec privilege, 1755.

Description
Double-page engraved map, with contemporary hand-colour in outline.

Dimensions
480 by 620mm (19 by 24.5 inches).

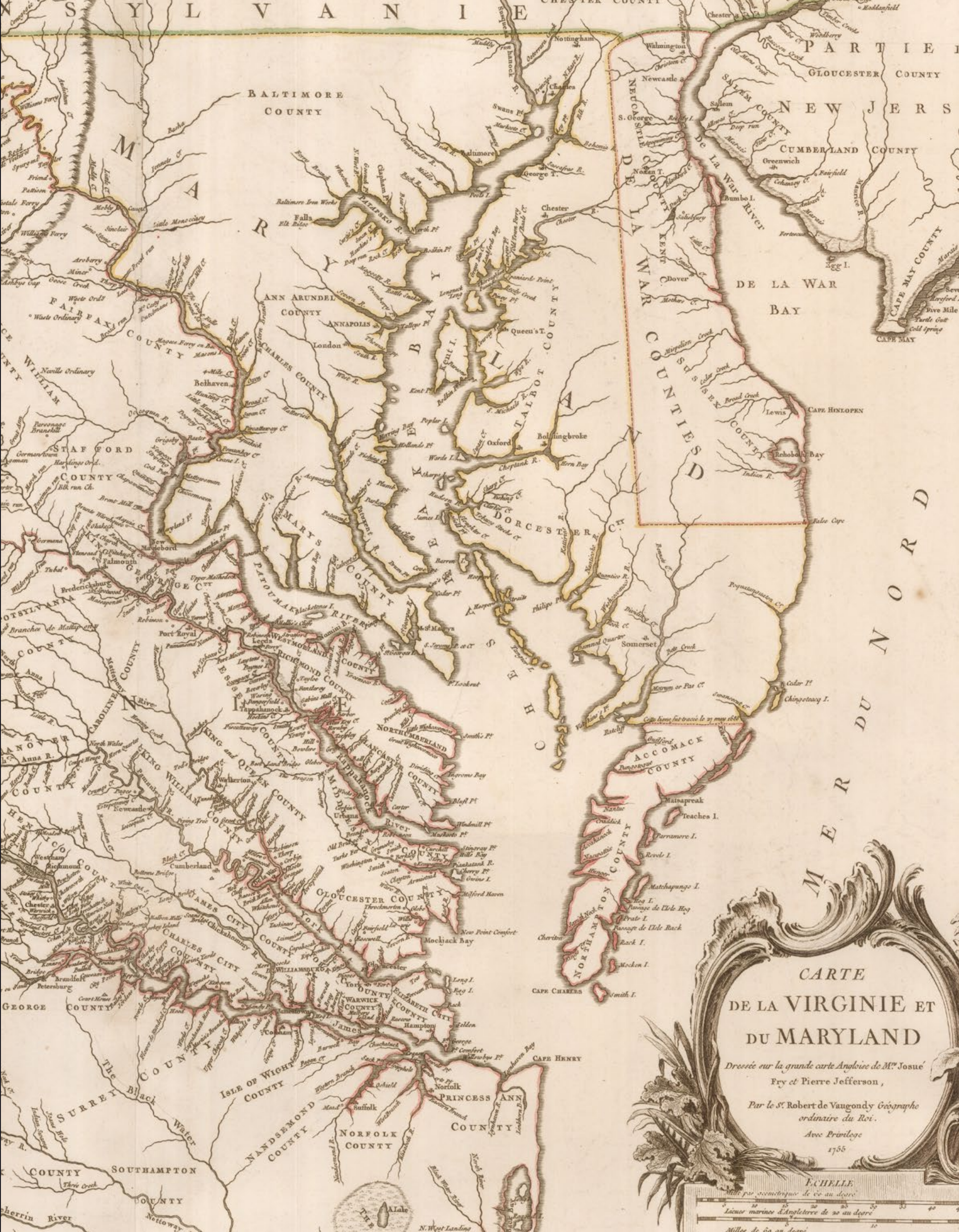
First edition, first state of Gilles Vaugondy's superb reduction of Fry and Jefferson's monumental map of Virginia, Maryland and Delaware.

Joshua Fry (1699-1754) and Peter Jefferson's (1708-1757, and father to President Thomas Jefferson) map is most important map for Virginia of the eighteenth century. It was first of Virginia by Virginians; the first to accurately depict the Blue Ridge, and to lay down the colony's road system. Many early plantations are located and identified by family name along the great rivers – including that of George Washington's family at what is now known as Mount Vernon. Showing Maryland, New Jersey, North Carolina, Pennsylvania, and Virginia. The Fry and Jefferson map of the broad area known as Virginia is the fundamental cartographic document of the region from the eighteenth century.

Fry and Jefferson are credited in the elaborate title-cartouche, engraved by Elizabeth Haussard, whose signature can be seen on the lower left, just below. Elizabeth Haussard (1700-1804) and her sister Marie Catherine (1746-1791) although trained by their father, noted French engraver Jean-Baptiste Haussard, both had significant independent careers as expert engravers, particularly of elaborate cartouches and other decorative elements of contemporary maps and charts.

The main map was engraved by Guillaume-Nicolas Delahaye, with some alterations to the original: there is a western border to Virginia, paralleling the Allegheny Mountains; "Louisiane" appears, emphasizing French claims to the interior of North America.

The Robert de Vaugondy family of cartographers was "securely based on the stock in trade of the great Nicolas Sanson, inherited in 1730 by Didier's father Gilles" (Katherine Swift). Gilles entered the map trade rather late in life, being already 46 when appointed "geographe du roi" in 1734. "He was a professor of mathematics who, according to later sources, had travelled a great deal in his youth. After befriending the ailing and aging Pierre Moullard-Sanson in 1730, he became one of the three heirs to Moullard-Sanson's geographical 'fonds' along with Jean Fremont, a lawyer, and Jacques-Simon Perrier, a priest. Robert and Fremont bought out Perrier's share of the Sanson stock, and Robert added to this collection by buying the plates of Nicolas Sanson from Jean Mariette in 1733. Robert's earliest map dates from 1731 ('Cours de la Meuse', in 'l'Historie de Verdun', 1745); much of his early work appeared as maps supplementing texts of books. Nonetheless, it is fair to say with Buache, that Gilles Robert de Vaugondy mostly issued Sanson maps with minor modifications. It was his son Didier (1723-1786) who wrote the theoretical books, taught geography and mathematics, presented memoires to the Academy of Sciences, as well as publishing new maps" (Mary Sponberg Pedley, 'New Light on an Old Atlas', for Imago Mundi, 1984, volume 36, pages 48-63).



CARTE
DE LA VIRGINIE ET
DU MARYLAND

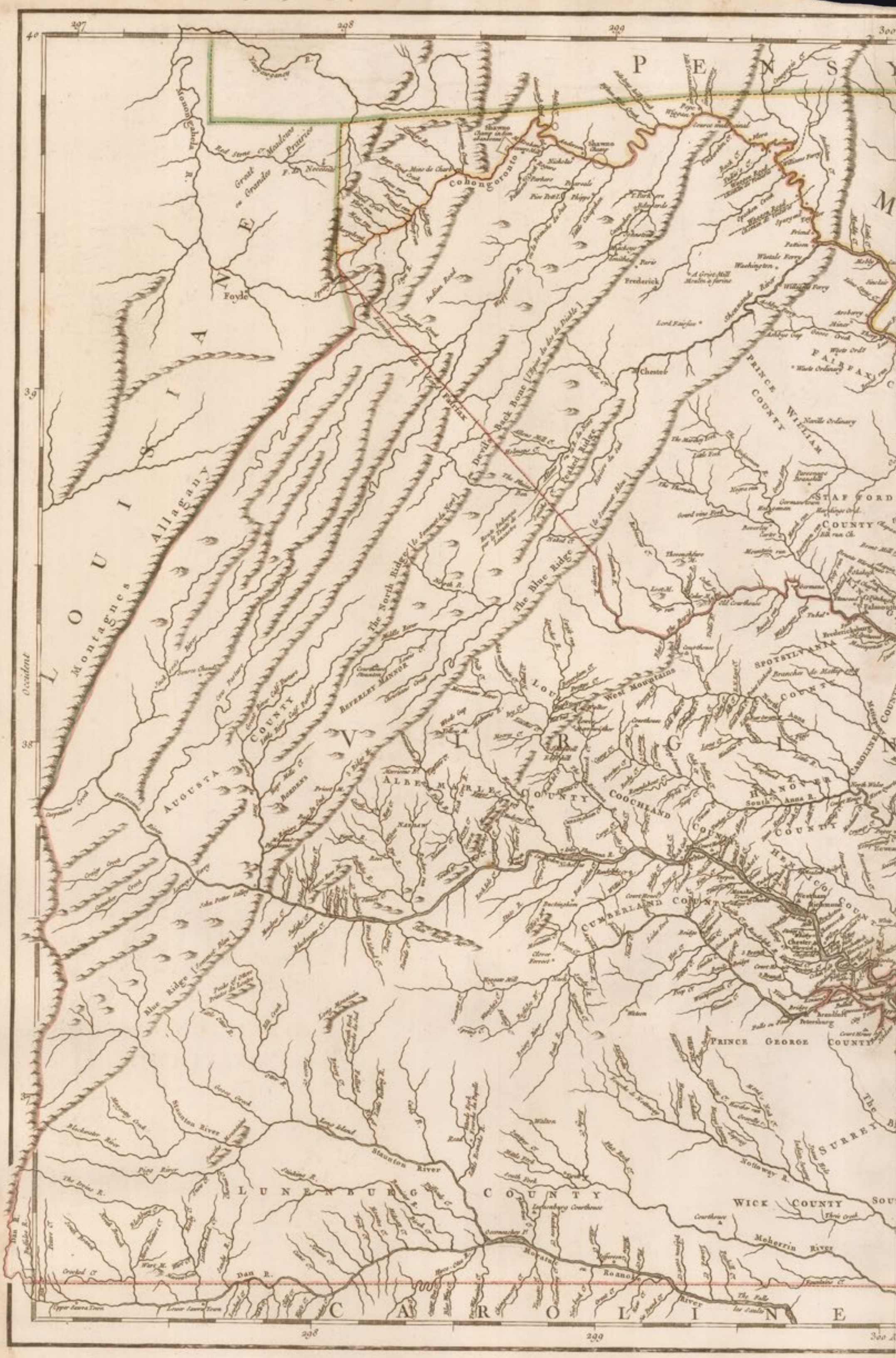
Dressée sur la grande carte Angloise de Mrs. Josué
Fry *et* Pierre Jefferson,

Par le Sr. Robert de Vaugondy *Géographe
ordinaire du Roi.*

Avec Privilege

1755

ECHELLE
Milles pas géométriques de 60 au degré
Lieues marines d'Angleterre de 20 au degré
Milles de 60 au degré
5
10
15
20
25
30
35
40
CHESTER COUNTY
PARTIE
NEW JERS
GLOUCESTER COUNTY
SALEM COUNTY
CUMBERLAND COUNTY
CAPE MAY COUNTY
CAPE MAY
DE LA WAR BAY
De La War River
DE LA WAR COUNTIES
NEWCASTLE COUNTY
KENT COUNTY
SUSSEX COUNTY
CAPE HINLOPEN
Rehoboth Bay
Indian R.
False Cape
Lewis
Dover
Wilmington
Newcastle
Chester
Salem
Greenwich
Fairfield
Bumbo I.
Egg I.
Cohansey Cr.
Maurice R.
Nottingham
Charles
Swans Pt.
Baltimore
George T.
Sassafras R.
Bohemia R.
Chester R.
Queen's T.
Oxford
Bollingbroke
Choptank R.
Horn Bay
Kent I.
Poplar I.
Sharps I.
James I.
Hoopers I.
Philips Pt.
Somerset
Pocomoke Bay
Watkins Pt.
Cedar Pt.
Chingoteaug I.
Nanticoke R.
Wicomico R.
Cette ligne fut tracée le 27 may 1668
BALTIMORE COUNTY
ANN ARUNDEL COUNTY
ANNAPOLIS
London
Baltimore Iron Works
Falls
Patapsco R.
North Pt.
Severn R.
Patuxent R.
PRINCE GEORGES
CHARLES COUNTY
ST. MARYS COUNTY
St. Marys
Pt. Lookout
TALBOT COUNTY
DORCESTER COUNTY
BAYE DE CHESAPEAK
MARYLAND
SYLVANIE
MER DU NORD
ACCOMACK COUNTY
NORTHAMPTON COUNTY
Matsapreak
Teaches I.
Parramore I.
Revels I.
Matchapungo I.
Hog I.
Passage de l'Isle Hog
Prats I.
Passage de l'Isle Rack
Rack I.
Mocken I.
Smith I.
Cheriton
CAPE CHARLES
CAPE HENRY
FAIRFAX COUNTY
PRINCE WILLIAM
STAFFORD COUNTY
Belhaven
Alexandria
Dumfries
Potomack River
WESTMORLAND COUNTY
RICHMOND COUNTY
NORTHUMBERLAND COUNTY
LANCASTER COUNTY
MIDDLESEX COUNTY
ESSEX
KING GEORGE COUNTY
KING and QUEEN COUNTY
KING WILLIAM COUNTY
CAROLINE COUNTY
SPOTSYLVANIA
HANOVER COUNTY
HENRICO COUNTY
GLOUCESTER COUNTY
JAMES CITY COUNTY
CHARLES CITY COUNTY
YORK COUNTY
WARWICK COUNTY
ELIZABETH CITY COUNTY
ISLE OF WIGHT COUNTY
NANSEMOND COUNTY
NORFOLK COUNTY
PRINCESS ANN COUNTY
SURREY COUNTY
PRINCE GEORGE COUNTY
SOUTHAMPTON COUNTY
Fredericksburg
Falmouth
Port Royal
Leeds
Tappahanock
Urbanna
Rappahanock River
York River
James R.
WILLIAMSBURG
Richmond
Westham
Petersburg
Brandfort
Cumberland
Newcastle
Walkerton
Gloucester
York
Jamestown
Hampton
Norfolk
Suffolk
Mockjack Bay
New Point Comfort
Pt. Comfort
Chickahominy R.
Black Water
Nottoway
Meherrin River
Three Creek



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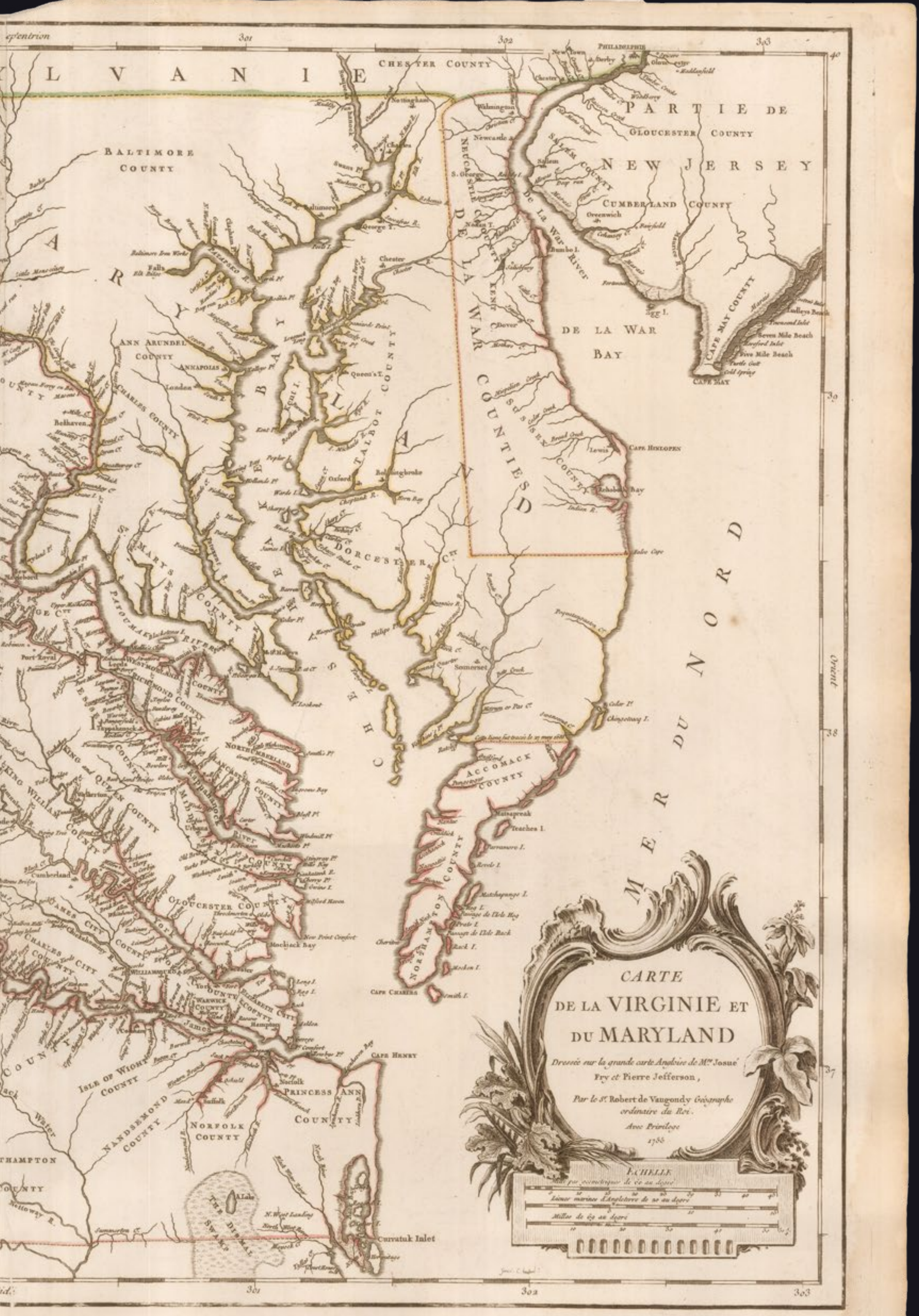
Occident
P E N S Y
M
L O U I S I A N E
Montagnes Allagany
V I R G I N
C A R O L I N E
Monongahela R.
Great Meadows
Grandes Prairies
Red Stone Cr.
F. Necessity
Foyle
Cohongoronto
Shawno Town
Frederick
Chester
Lord Fairfax
Fairfax
Prince William County
Staf ford County
Spotsylvania County
The North Ridge
The Blue Ridge
Devils Back Bone
Fairfax
Augusta County
Beverley Mannor
Albemarle County
Goochland
Louisa
Hanover County
Henrico County
Cumberland County
Prince George County
Petersburg
Richmond
Surrey
Lunenburg County
Lunenburg Courthouse
Wick County
Staunton River
Meherrin River
Roanok
Dan R.
Blue Ridge
Upper Sawra Town
Lower Sawra Town
The Falls



CARTE
DE LA VIRGINIE ET
DU MARYLAND

Dressée sur la grande carte Angloise de M.rs Josué Fry et Pierre Jefferson,

Par le S.r Robert de Vaugondy Géographe ordinaire du Roi.

Avec Privilege

1755

ECHELLE
Milles par extrémité de 60 au degré
Lieues marines d'Angleterre de 20 au degré
Milles de 69 au degré
LVANIE
CHESTER COUNTY
PHILADELPHIA
PARTIE DE
GLOUCESTER COUNTY
NEW JERSEY
CUMBERLAND COUNTY
CAPE MAY COUNTY
CAPE MAY
DE LA WAR BAY
De La War River
NEWCASTLE COUNTY
KENT COUNTY
SUSSEX COUNTY
DE LA WAR COUNTIES
CAPE HINLOPEN
BALTIMORE COUNTY
ANN ARUNDEL COUNTY
ANNAPOLIS
TALBOT COUNTY
CHARLES COUNTY
ST MARYS COUNTY
DORCESTER Cty
MARYLAND
BAY
CHESAPEAKE
MER DU NORD
ACCOMACK COUNTY
NORTHAMPTON COUNTY
CAPE CHARLES
CAPE HENRY
PRINCESS ANN COUNTY
NORFOLK COUNTY
NANSEMOND COUNTY
ISLE OF WIGHT COUNTY
GLOUCESTER COUNTY
KING WILLIAM COUNTY
KING and QUEEN COUNTY
RICHMOND COUNTY
WESTMORELAND COUNTY
NORTHUMBERLAND COUNTY
LANCASTER COUNTY
MIDDLESEX COUNTY
JAMES CITY COUNTY
CHARLES CITY COUNTY
WARWICK COUNTY
ELIZABETH CITY COUNTY
THE DISMAL SWAMP
Curratuk Inlet
Septentrion
Orient
301
302
303
40
39
38
37

A cartouche with finesse

3 HAUSSARD, Marie Catherine; ROBERT DE VAUGONDY, Gilles

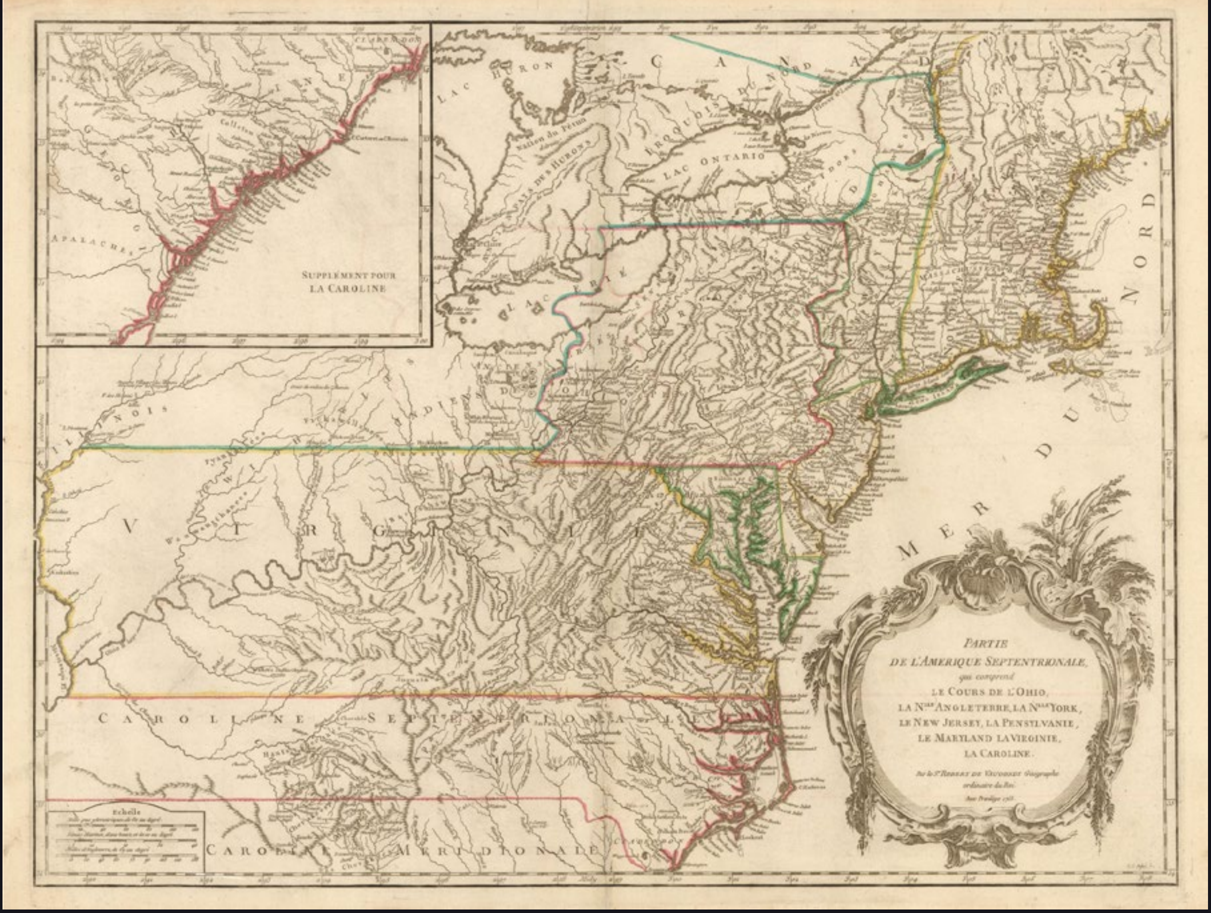
Partie de l'Amerique Septentrionale, qui Comprend le Cours de l'Ohio, la Nlle. Angleterre, la Nlle York, le New Jersey, la Pensylvanie, le Maryland la Virginie, la Caroline.

Publication
Paris, Par le Sr. Robert de Vaugondy, Geographe ordinaire du Roi, Avec privilege, 1755.

Description
Double-page engraved map, with contemporary hand-colour in outline.

Dimensions
480 by 620mm (19 by 24.5 inches).

A very early map of the course of the Ohio River and British Colonies of North America, with an inset of the Carolinas. The magnificent asymmetrical rococo title-cartouche is engraved and signed by Marie Catherine Haussard (1746-1791). Marie Catherine and her sister Elizabeth (1700-1804) although trained by their father, noted French engraver Jean-Baptiste Haussard, both had significant independent careers as expert engravers, particularly of elaborate cartouches and other decorative elements of contemporary maps and charts.


PARTIE
DE L'AMERIQUE SEPTENTRIONALE,
qui comprend
LE COURS DE L'OHIO,
LA NLLE ANGLETERRE, LA NLLE YORK,
LE NEW JERSEY, LA PENSYLVANIE,
LE MARYLAND LA VIRGINIE,
LA CAROLINE.
Par le Sr. Robert de Vaugondy Géographe
ordinaire du Roi.
Avec Privilège 1755.
SUPPLÉMENT POUR
LA CAROLINE
APALACHES
LAC HURON
CANADA
LAC ONTARIO
LAC ERIÉ
ILLINOIS
VIRGINIE
CAROLINE SEPTENTRIONALE
CAROLINE MERIDIONALE
MER DU NORD
Echelle

Mary Ann Rocque's Rare four sheet reduction of Rocque's map of Greater London

4 **ROCQUE, Mary Ann**

The Environs of London. Reduced from an Actual Survey in 16 Sheets, by the Late John Rocque, topographer to His Majesty with New Improvements to the Year 1763. To the Right Honorable George Montague Earl of Cardigan, Baron Brudenell &c. This Plan of the Environs of London Is humbly dedicated By His Lordship's most humble & obliged servant, Mary Ann Rocque.

Publication
London, Printed for Carington Bowles, No. 69 in St. Paul's Church Yard, & Robert Sayer, No. 53 in Fleet Street, 1763.

Description
Engraved map, on four sheets, dissected and laid down on linen.

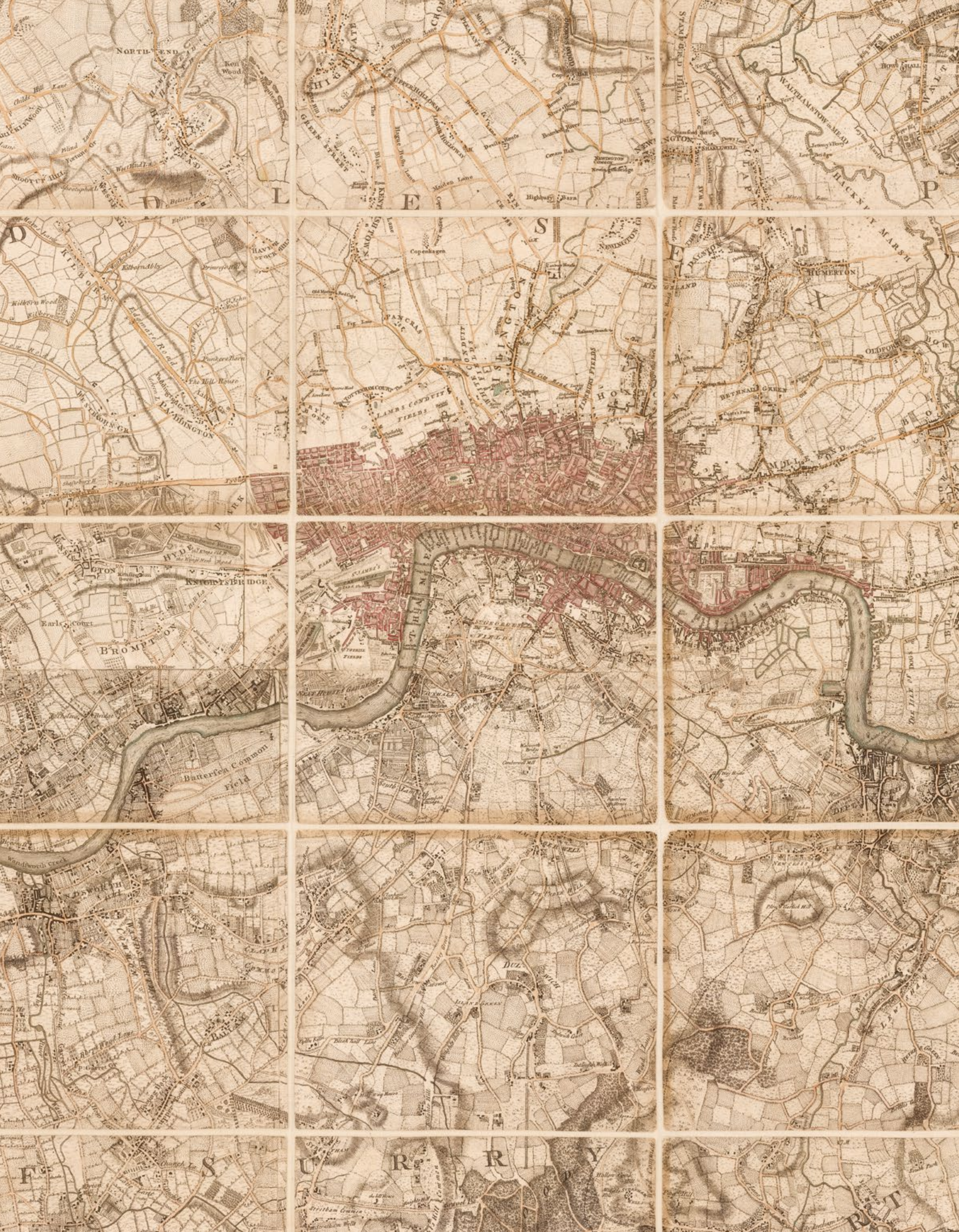
Dimensions
910 by 1310mm (35.75 by 51.5 inches).

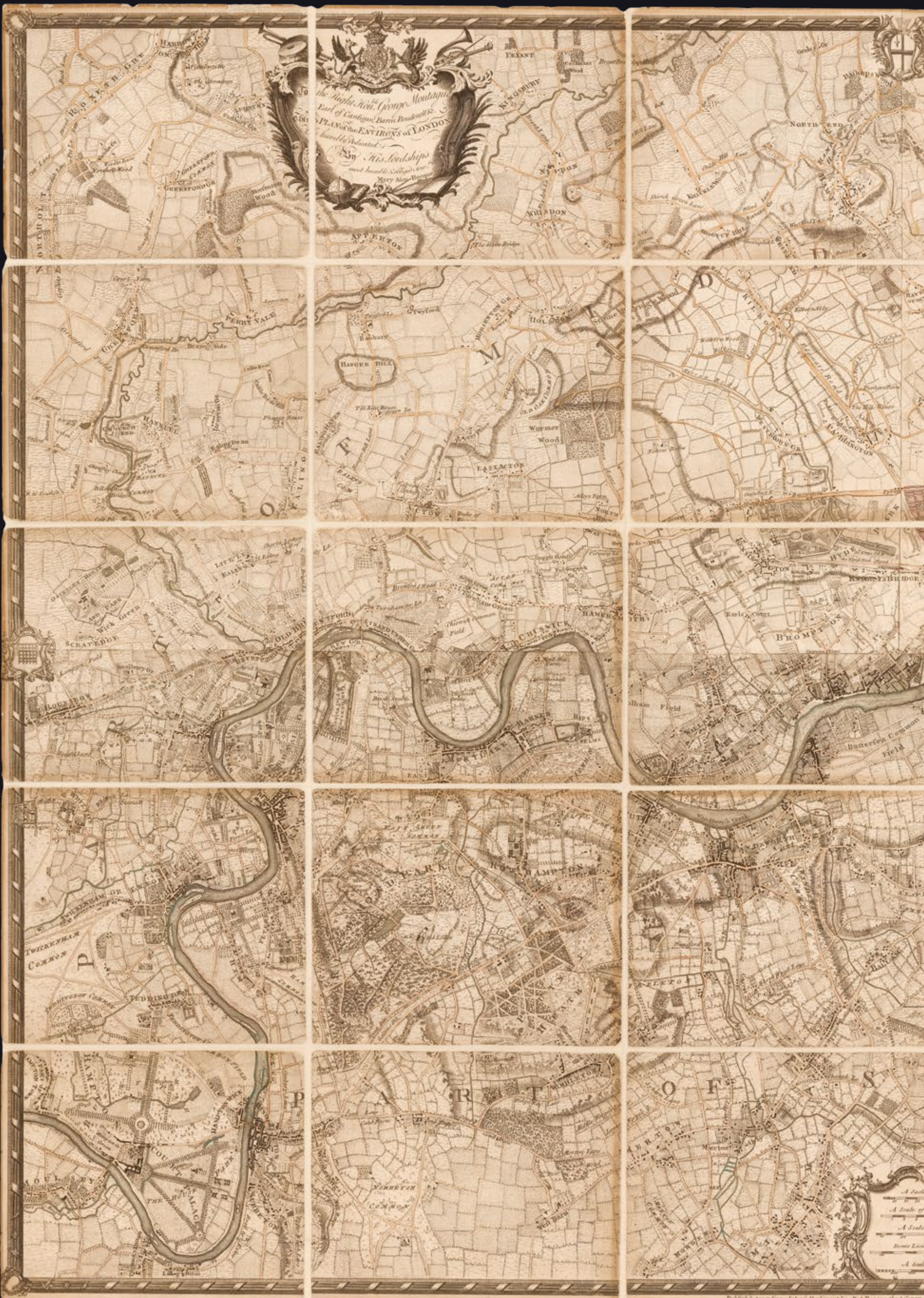
References
Howgego 124 (1a).

This fine survey is a reduction of John Rocque's monumental survey of London upon 16 sheets. The map bears the name of Rocque's widow, Mary Ann, who continued his map publishing business. The plan also bears the imprint of Carington Bowles, to whom Mary would transfer much of the business at some time around 1769.

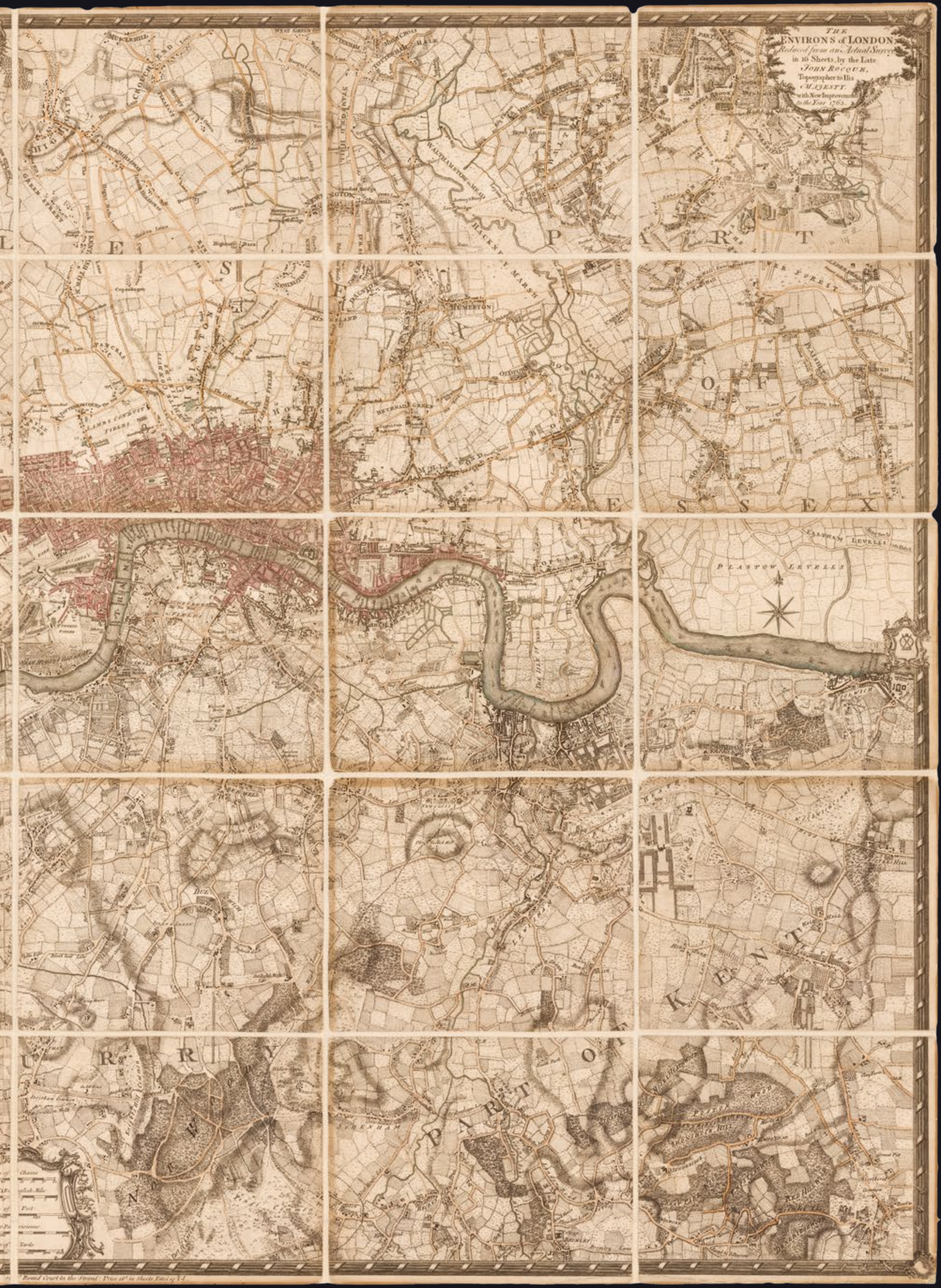
Following John Rocque's death in 1762, his wife, Mary Ann administered his estate and carried on his map business for six years as the publisher of his works.

Rocque's work began with plans of private estates, and expanded to town plans based on surveys commissioned by Rocque himself. These larger town and county plans were a response to a growing demand for improved regional cartography, borne out of civic pride. Rocque's effort in this sphere were part of a larger effort in British cartography towards more accurate surveying and cartography, but he was the only one of his contemporaries initiating projects on this scale not to declare bankruptcy. His modus operandi was to dedicate each work to an influential or wealthy figure, as the costs of surveys were rarely met by the proceeds of sales.


NORTH-END
Ken Wood
HAMPSTEAD
Shootup Hill
Belsize
HIGHGATE
UPPER HOLLOWAY
GREEN STREET
KENTISH TOWN
Maiden Lane
Highbury Barn
NEWINGTON
STAMFORD HILL
STAMFORD HILL
CLAPTON
SHAKLEWELL
WALTHAMSTOW MEAD
HACKNEY
D
L
E
S
E
X
P
KILBORN
Kilborn Abby
Kilborn Wood
Primrose Hill
Edgware Road
PADDINGTON
Copenhagen
PANCRAS
ISLINGTON
CONDUIT FIELDS
FINSBURY FIELDS
HOXTON
KINGSLAND
DALSTON
HOMERTON
HACKNEY MARSH
OLDFORD
BOW
BETHNAL GREEN
MILE END
TOTTENHAM COURT
LAMBS CONDUIT FIELDS
MARY LE BONE
PARK
HYDE PARK
KENSINGTON
KNIGHTSBRIDGE
Earls Court
BROMPTON
ST JAMES'S
THAMES
ST GEORGES FIELDS
TOTHILL FIELDS
Battersea Common Field
Wandsworth Creek
WANDSWORTH
CLAPHAM COMMON
CAMBERWELL
DULWICH
ILAND GREEN
DEPTFORD
NEW CROSS
LEWISHAM
Streatham Common
F
S
U
R
R
Y


To the Right Honble George Montague
Earl of Cardigan, Baron Brudenell &c.
This PLAN of the ENVIRONS of LONDON
is humbly Dedicated
By His Lordships
most humble & oblig'd Serv.t
Mary Ann Rocque
HARROW ON THE HILL
GREENFORD
KINGSBURY
NEASDON
WILSDON
FRIANT
NORTH END
KILBURN WOOD
APPERTON
PERRY VALE
HANGER HILL
TWYFORD
EALING
EAST ACTON
Wormer Wood
ACTON
HANWELL
PADDINGTON
HYDE PARK
KNIGHTSBRIDGE
Earls Court
BROMPTON
HAMMERSMITH
CHISWICK
Turnham Green
OLD BRENTFORD
SCRATEDGE
HOUNSLOW
Wick Green
Battersea Common
Field
MORTLAKE
EAST SHEEN
ROEHAMPTON
TWICKENHAM COMMON
TEDDINGTON
NORBETON COMMON
P A R T O F S
A Scale of
Demie Lieue
A Scale

Published according Act of Parliament by M. A. Rocque the Corner


THE ENVIRONS of LONDON
Reduced from an Actual Survey in 16 Sheets, by the Late
JOHN ROCQUE,
Topographer to His MAJESTY.
with New Improvements to the Year 1763.
MUSWELL HILL
WEST GREEN
TOTTENHAM HIGH CROSS
HIGHGATE
STAMFORD HILL
WALTHAMSTOW
HACKNEY MARSH
HOMERTON
Copenhagen
PANCRAS
ISLINGTON
LAMBS CONDUIT FIELDS
BETHNAL GREEN
PLASTOW LEVELLS
EASTHAM LEVELLS
SYDENHAM
BROMLEY
Chains
English Mile
Feet
Perches
Yards
E S S E X
P A R T O F
K E N T
S U R R Y
M I D D L E S E X

Round Court in the Strand: Price 16s in Sheets Fitted up 1.1

The first large-scale survey of Surrey

5 ROCQUE, Mary Ann; and John ROCQUE

A Topographical Map of the County of Surrey In which is Expressed all the Roads, Lanes, Churches, Noblemen, and Gentlemen's Seats, &c. &c., the Principal Observations, by the Late John Rocque, Topographer to His Majesty, Compleated and Engraved by Peter Andrews. To His Royal Highness William Henry Duke of Gloucester & Edinburgh and Earl of Connaught Ireland. This Actual Survey of the County of Surrey in most humbly inscrib'd by his Royal Highness's most humble and obliged Servant. Mary Ann Rocque.

Publication
London, Mary Ann Rocque, [c.1787].

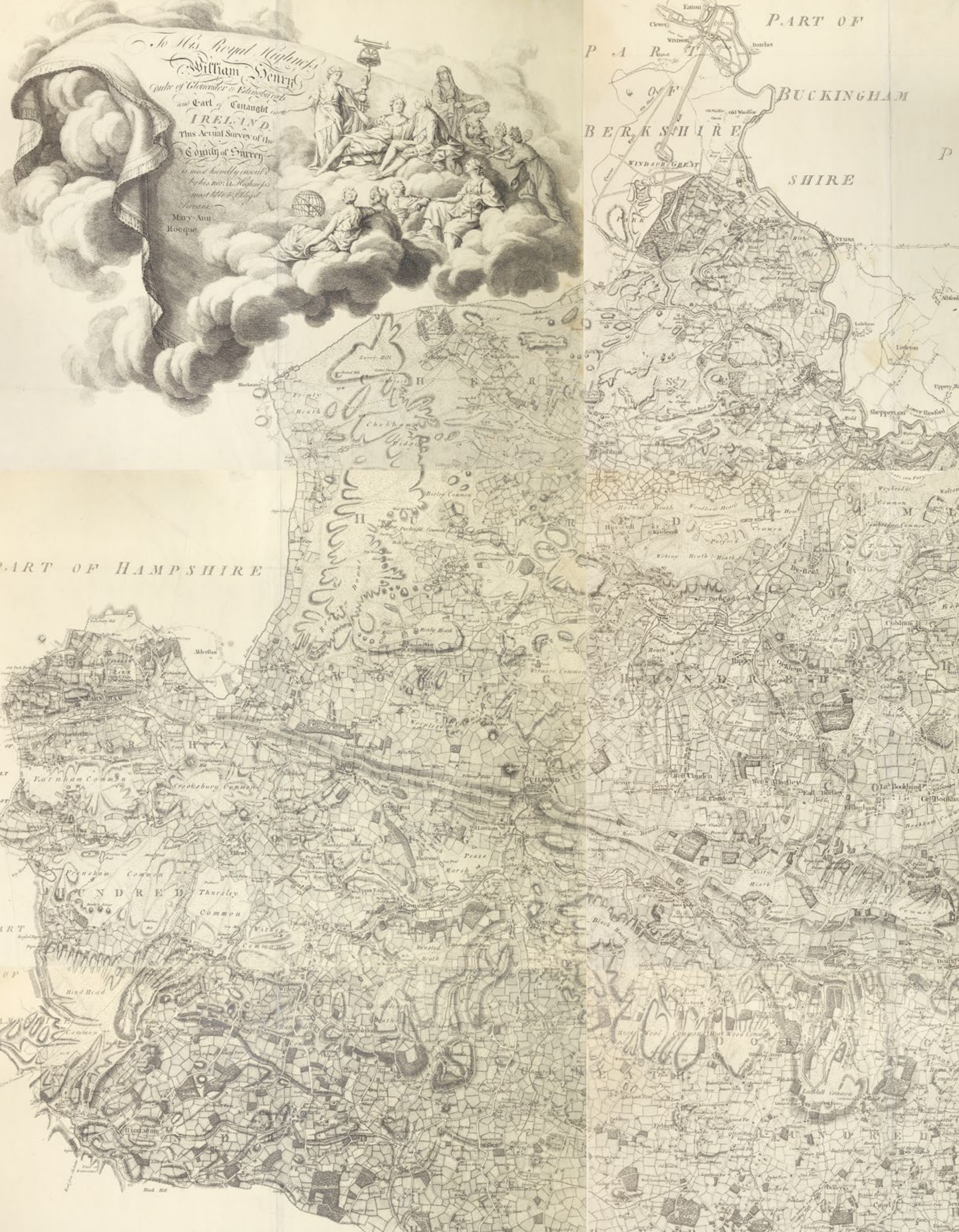
Description
Large oblong folio (580 by 720mm), large engraved map on nine sheets, bound in plano, six sheets remargined at right, with no loss to image, green half calf over original eighteenth century marbled paper boards, rebacked and recornered, red morroco label lettered in gilt to upper board.

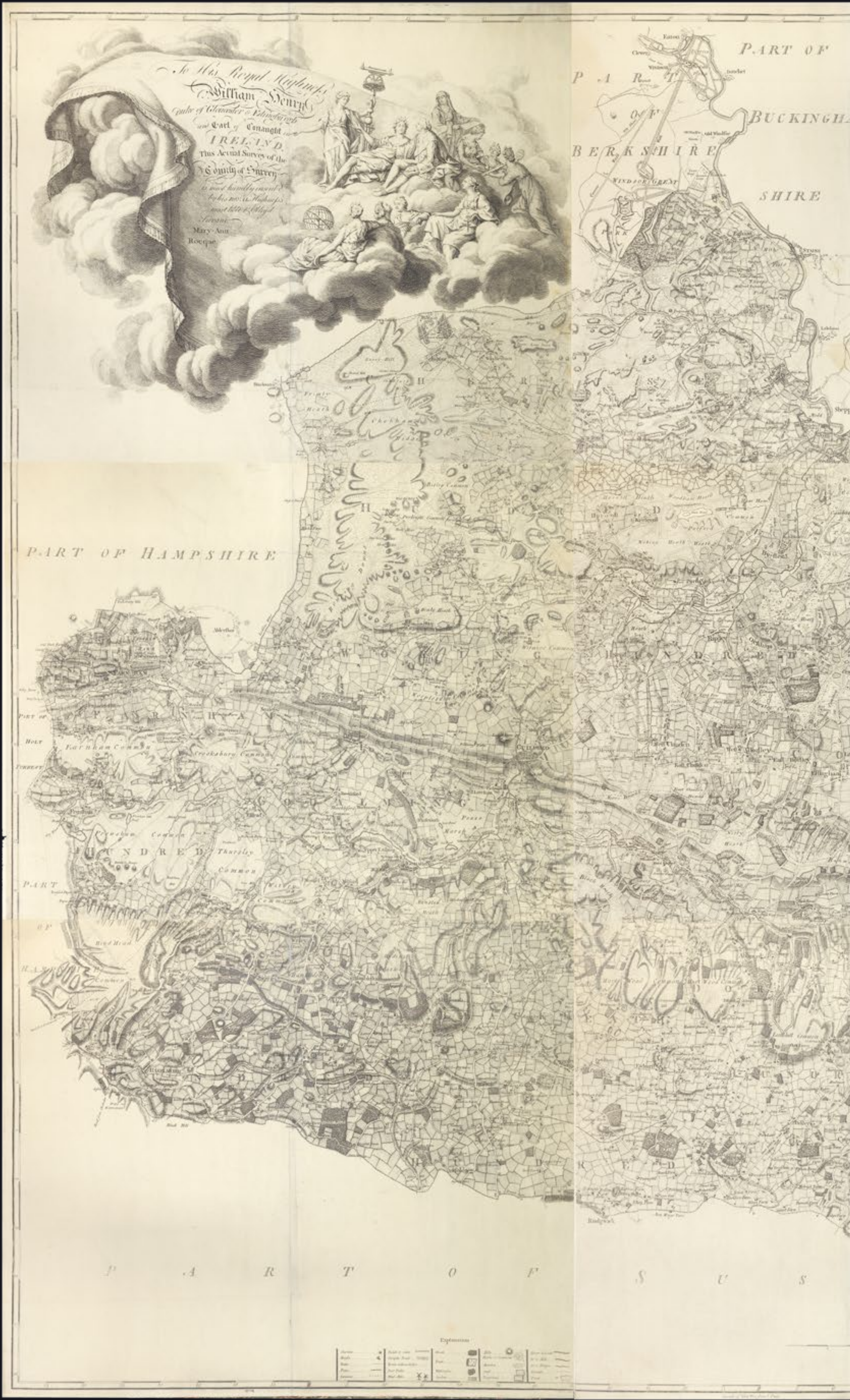
Dimensions
570 by 700mm (22.5 by 27.5 inches).

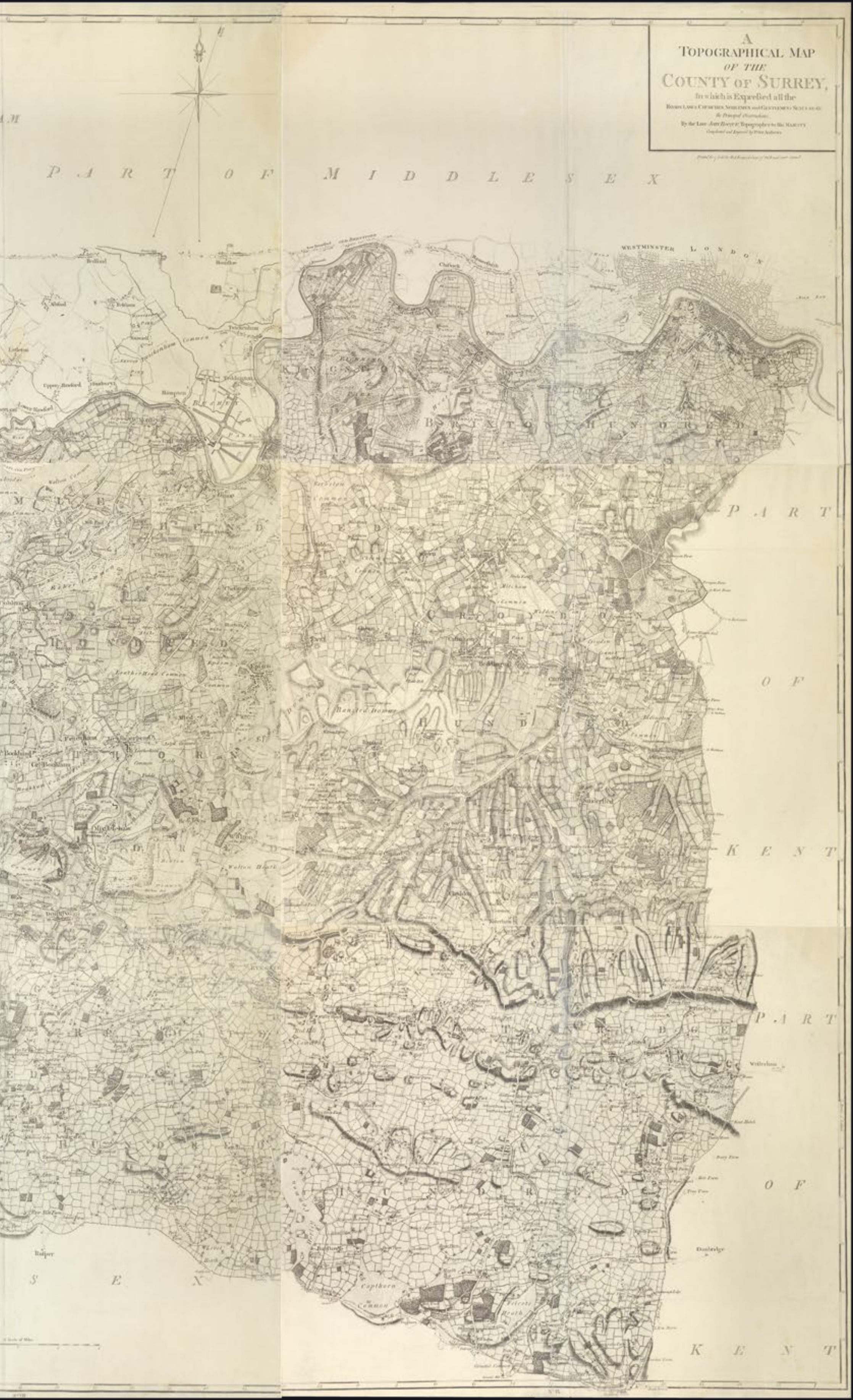
The second state of John Rocque's immensely detailed map of Surrey, identifiable by the inclusion of the Battersea and Richmond Bridges. Richmond Bridge was completed in 1787, the probable date of this work. The contribution of the Huguenot surveyor and engraver John Rocque (d.1762) to English regional cartography is difficult to overstate. He produced fine surveys of Berkshire, Middlesex, Shropshire and Surrey, together with two important maps of London. The Surrey map is no exception - the first of the county on this scale. Following Rocque's death in 1762 the survey was completed and the plates engraved by Peter Andrews, but it retains Rocque's unique style, suggesting that most of the survey was finished before his death. It was published by his widow, Mary Ann Rocque, who inherited the business upon Rocque's death and ran it successfully for some time after: the widows of members of the Stationer's Company in England were allowed to retain guild membership for life, even if they remarried.

Mary Ann Rocque followed her husband's example by dedicating their map of Surrey to a wealthy patron. The large and spectacular cartouche in the upper left corner contains a dedication to William Henry, Duke of Gloucester, and includes his portrait. The Duke sits on a cloud, with his attention directed towards the text by Apollo, surrounded by the nine Muses. The globe and telescope of Urania are given particular prominence. The map itself mirrors his previous productions, with a delicate use of hatching to differentiate between arable and pasture allowing land-use to be easily ascertained. It is, however, peculiar in that it is oriented to magnetic north instead of true north, and this may cause a little confusion at first glance.

A map of immense detail combined with clarity of expression, a fine example of a rare large-scale county survey of which only a handful have survived.


To His Royal Highness
William Henry
Duke of Glocester & Edinburgh
and Earl of Conaught in
IRELAND.
This Actual Survey of the
County of Surrey
is most humbly inscrib'd
by his Ro: H. Highness's
most dutiful & Oblig'd
Servant
Mary-Ann
Rocque
PART OF BERKSHIRE
PART OF BUCKINGHAMSHIRE
PART OF HAMPSHIRE
Eaton
Windsor
Clewer
Datchet
Old Windsor
Windsor Great Park
Egham
Stains
Thorpe
Chertsey
Laleham
Littleton
Shepperton
Lower Halliford
Surry Hill
Bagshot
Windlesham
Frimly Heath
Chobham Ridges
Bisley Common
Horsell Heath
Woodham Heath
Pirford
Woking Heath
Weybridge
Byfleet
Cobham
Ripley
Ockham
Alderton
Farnham
Farnham Common
Crookesbury Common
Frensham Common
Thursley Common
Witley
Guilford
Worplesdon
West Clandon
East Clandon
West Horsley
East Horsley
Effingham
Gt. Bookham
Lt. Bookham
Black Heath
Hind Head
Haslemere
Albury
Dorking
Capel
Leith Hill Common
Horsham
Blackwater
Ewhurst
Eashing
Milford
Hambledon


To His Royal Highness
William Henry
Duke of Glocester & Edinburgh
and Earl of Connaught in
IRELAND,
This Actual Survey of the
County of Surrey
is most humbly inscrib'd
by his Royal Highness's
most Obt. & Obligd
Servant
Mary-Ann
Rocque
PART OF
BUCKINGHA
SHIRE
PART OF BERKSHIRE
WINDSOR GREAT PARK
Eaton
PART OF HAMPSHIRE
Farnham Common
Crookesbury Common
Thursley Common
Frensham Common
Hind Head
PART OF HOLT FOREST
PART OF HAMPSHIRE
H U N D R E D
P A R T O F S U S
Explanation


A
TOPOGRAPHICAL MAP
OF THE
COUNTY OF SURREY,
In which is Expressed all the
Roads Lanes Churches Noblemen and Gentlemens Seats &c. &c.
the Principal Observations.
By the Late John Rocque Topographer to His Majesty
Completed and Engraved by Peter Andrews.
PART OF MIDDLESEX
WESTMINSTER
LONDON
Chelsea
Putney
Brentford
Twickenham
Hampton
Kingston
Brixton Hundred
Croydon
Banstead Downs
Mitcham Common
Copthorn Common
Epsom
Godstone
Tandridge Hundred
PART OF KENT
PART OF KENT
PART OF SUSSEX

“It is amazing to me,” said Bingley, “How young ladies have patience to be so very accomplished as they all are”

6 “J.B.”; after Thomas BOWEN

North America [and] South America.

Publication
1778 [and] 1779.

Description
A pair of gilt paper-cut maps on black silk; contemporary ebonised wooden frames, gilt.

Dimensions
220 by 175mm (8.75 by 7 inches) [and]
240 by 190mm (9.5 by 7.50 inches)

It is a truth universally acknowledged that the delicate art of paper-cutting was amongst the many accomplishments to which the eighteenth century lady could aspire. Often delicate, sometimes dramatic, creating intricate designs in decoupage, silhouette, collage, and above all paper-mosaics, was a very acceptable way to spend a rainy afternoon. The acknowledged doyenne of the art was undoubtedly Mrs. Mary Delany, whose iconic botanical “paper mosaicks” are an astonishing combination of art and science.

As is this pair of minutely detailed maps, by “J.B.”, created from very fine gilt paper-cuts, laid down on black silk. The maps are based on those of North and South America published by Thomas Bowen, from 1774, and were made at a time when “America” would have been very much “in the news”, as the tide of the Revolutionary War had begun to turn in favour of the Continental Army, led by George Washington. And it is tempting to speculate that these black maps were executed with an air of mourning.

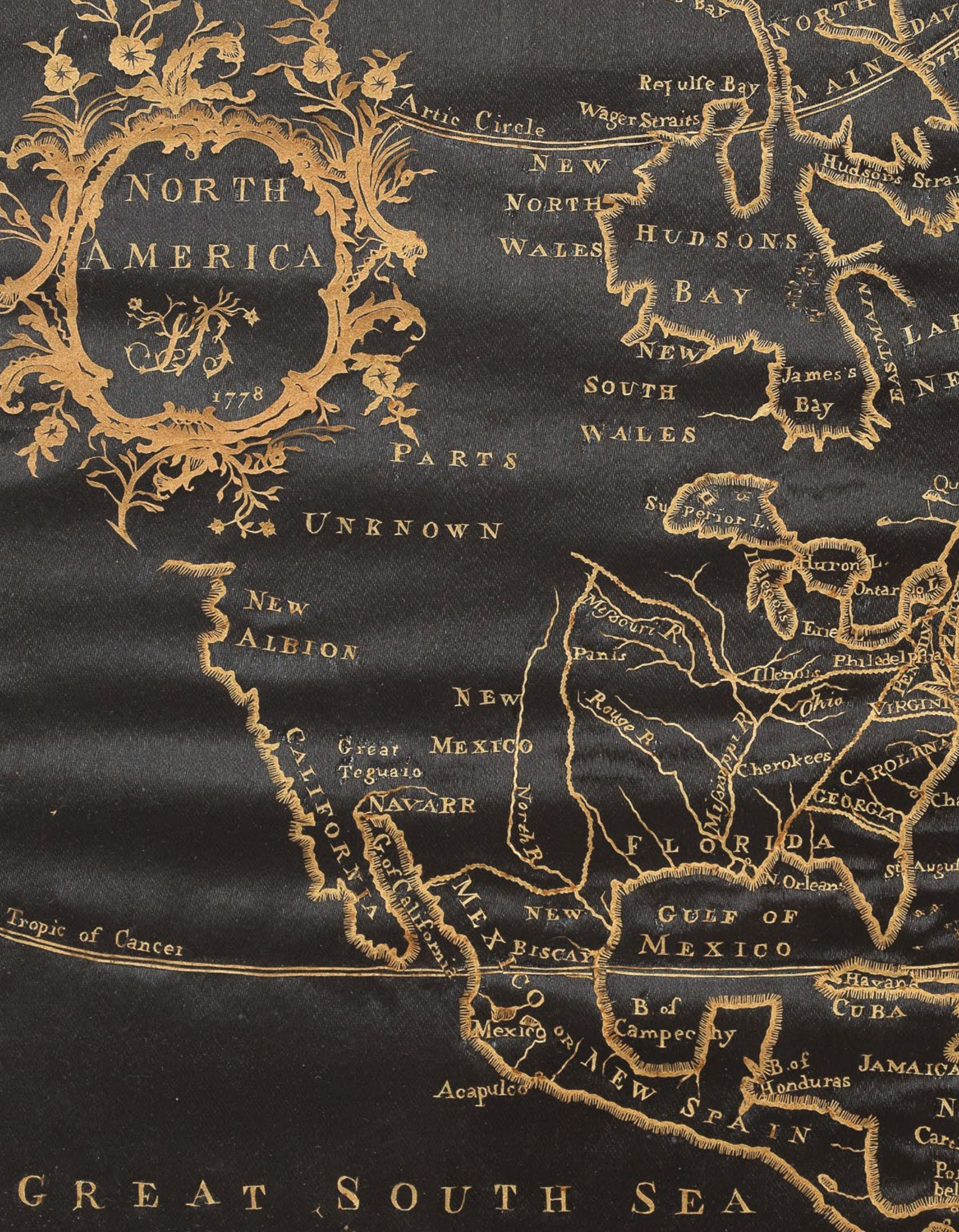
The maps are also apparently unique, as we are unaware of any other paper-cut maps of the period. Elaborately embroidered maps, and maps painstakingly copied in pen and ink and coloured wash, were the more usual cartographical pastime.

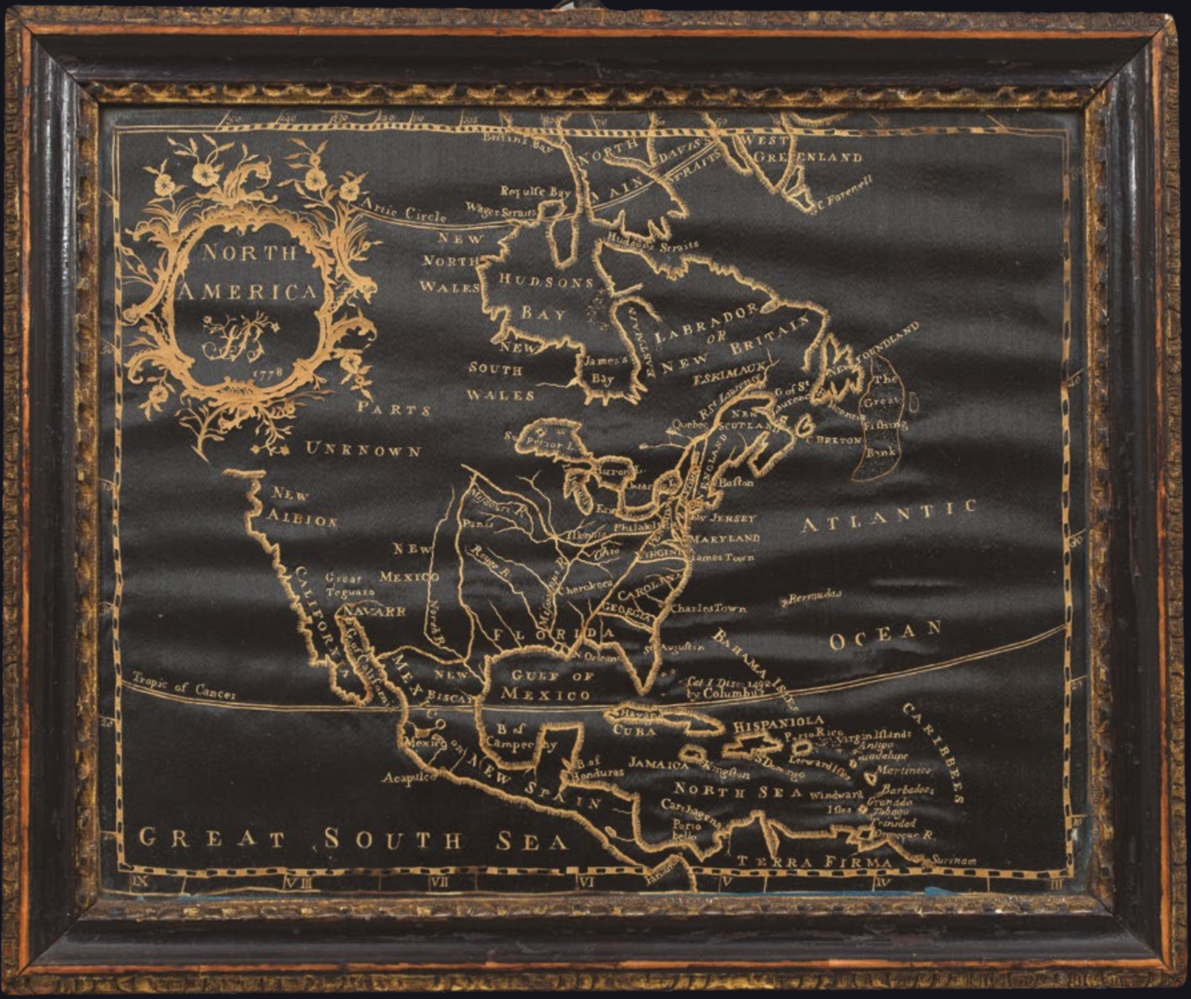
We do not know who “J.B.” was, although the Bowen family of cartographers was a large one, and since the maps are based on those by Thomas Bowen, perhaps their creator was related.

Thomas Bowen (c1732 – 1790) was the son of Emmanuel Bowen, who was geographer to George II, from about 1747, and possibly (according to Chubb), geographer to Louis XV of France. Thomas Bowen officially began to work for his father early in 1748, principally contributing to the periodical commissions.

After his father’s death Thomas continued to work on their joint project of large-scale English maps in the ’Atlas Anglicanus’, which was issued to subscribers in 1768. Overall, his output was not as extensive as his father’s, but during the 1770s he produced a number of significant maps, including ‘A new and correct map of the countries twenty miles round London’ (1770), contributions to British periodicals, three charts for Hawkesworth’s account of the first voyage of Captain James Cook, a ‘Map of the province of South Carolina’ (1773), and contributions to Speer’s ‘Chart of part of the West Indies’ (1773).

Like his father before him, Thomas is thought to have died in penury, in a workhouse, in 1790.


NORTH AMERICA
1778
Artic Circle
Repulse Bay
Wager Straits
NEW NORTH WALES
HUDSONS BAY
Hudsons Strait
NEW SOUTH WALES
James's Bay
EASTMAIN
PARTS UNKNOWN
Superior L.
Huron L.
Ontario L.
Erie
Missouri R.
Panis
Illenois
Philadelphia
Ohio
VIRGINIA
Rouge R.
Missisippi R.
Cherokees
CAROLINA
GEORGIA
NEW ALBION
NEW MEXICO
Great Teguaio
NAVARR
CALIFORNIA
G. of California
North R.
FLORIDA
N. Orleans
St. Augustine
MEXICO
NEW BISCAY
GULF OF MEXICO
Tropic of Cancer
Havana
CUBA
B. of Campechy
Mexico
B. of Honduras
JAMAICA
Acapulco
OR NEW SPAIN
GREAT SOUTH SEA


NORTH AMERICA
1778
Baffins Bay
NORTH MAIN
DAVIS'S STRAITS
WEST GREENLAND
C. Farewell
Repulse Bay
Wager Straits
Artic Circle
Hudsons Straits
NEW NORTH WALES
HUDSONS BAY
NEW SOUTH WALES
James's Bay
EASTMAIN
LABRADOR OR NEW BRITAIN
ESKIMAUX
R. St. Lawrence
G. of St. Laurence
NEWFOUNDLAND
The Great Fishing Bank
Quebec
NEW SCOTLAND
C. BRETON
NEW ENGLAND
NEW YORK
Boston
PARTS UNKNOWN
Superior L.
Huron L.
Michigan
Ontario L.
Erie L.
Missouri R.
Panis
Illenois
Philadelphia
New JERSEY
MARYLAND
PENSYLVANIA
VIRGINIA
James Town
Ohio
Rouge R.
Mississippi R.
Cherokees
CAROLINA
GEORGIA
CharlesTown
Bermudas
ATLANTIC OCEAN
NEW ALBION
NEW MEXICO
Great Teguaio
NAVARR
CALIFORNIA
G. of California
North R.
FLORIDA
N. Orleans
St. Augustin
BAHAMA ISLES
Cat I. Disc. 1492 by Columbus
Tropic of Cancer
NEW BISCAY
MEXICO
GULF OF MEXICO
B. of Campechy
Havana
CUBA
HISPANIOLA
Porto Rico
Virgin Islands
Antigo
Guadalupe
Martinico
CARIBBEES
Leeward Isles
S. Domingo
JAMAICA
Kingston
Mexico
Acapulco
MEXICO OR NEW SPAIN
B. of Honduras
NORTH SEA
Windward Isles
Barbadoes
Granada
Tobago
Trinidad
Oronoque R.
Carthagena
Porto bello
Panama
TERRA FIRMA
Surinam
GREAT SOUTH SEA
IX
VIII
VII
VI
V
IV
III

SOUTH AMERICA
1775
GULF OF MEXICO
MEXICO
Mexico
Bay of Campeche
OLD SPAIN
Acapulco
Caribean Sea
HISPANIOLA
Porto Rico
CARIBBEE ISLANDS
Dominica
Martinico
St Vincent
Barbadoes
Tobago
Trinidad
R. Oronoque
Surinam
Cayenne
TERRA FIRMA
Panama
GUIANA
Tropic of Cancer
C. Blanco
CAPE VERD ISLANDS
St Jago
C. Verd
Senegal
AFRICA
GREAT SOUTH
SEA
OR
PACIFIC
OCEAN
Equinoctial Line
GALLIPAGO'S ISLANDS
SOLOMONS ISLANDS
ATLANTIC
OCEAN
QUITO
PERU
LIMA
Lima
AMAZONIA
Amazon R.
BRASIL
C. St Augustin
B. de Todos Santos
R. Doce
Trinidad I.
PARAGUAY
CHARCAS
Potosi
La Plata
LA PLATA
PARANA
URAGUAY
TUCUMAN
Rio de Janeiro
St Katharine
Tropic of Capricorn
I. Juan Fernandez
St Jago
Buenos Ayres
Chiloe
CHILI
PATAGONIA
Cordillera los Andes
Falkland I.
Straits of Magellan
TERRA DEL FUEGO
I. S.T Drake
C. Horn
Roche I.
Meridian of London
Hours West from London
VIII
VI
II
Longitude West from London

The first published scientific paper, in English, authored by a woman

7 HERSCHEL, Caroline Lucretia

An Account of a New Comet. In a Letter from Miss Caroline Herschel to Charles Blagden, M.D. Sec. R.S. Read. Nov. 9, 1786.

Publication
London, Sold by Lockyer Davis, and Peter Elmsly, Printers to the Royal Society, 1787.

Description
Quarto (225 by 176mm). 5 pages, one folding engraved plate; extracted from a sammelband, bound in modern marbled paper wrappers.

References
Hoskin, for ODNB online.

The published account of the first scientific paper, authored by a woman to be read before The Royal Society of London and one of the first written by a woman to be included in the proceedings of a scientific society anywhere in the world. The discovery of what is now known as Comet C/1786 PT was made by Caroline Herschel, while her brother William was away travelling in Germany. Her deep satisfaction, on many levels, is tangible, as her paper reveals:

"The employment of writing down the observations, when my Brother uses the 20-feet reflector, does not often allow me time to look at the heavens; but as he is now on a visit to Germany, I have taken the opportunity of his absence to sweep in the neighbourhood of the sun, in search of comets: and last night, the 1st of August, about 10 o'clock, I found an object very much resembling in colour and brightness the 27th nebula of the Connoissance des Temps, with the difference however of being round. I suspected it to be a comet; but haziness coming on, it was not possible to intirely [sic] to satisfy myself as to its motion till this evening".

Caroline's announcement of her discovery, in the 'Philosophical Transactions', volume, LXXVII (1787), is the first published scientific paper, in English, authored by a woman. Also without precedent is her immediate reward, by George III, an ardent astronomer himself, of an annual stipend of £50.

Caroline Lucretia Herschel's (1750-1848) mother, "had no doubt that a daughter's place was in the home, helping with the housework; she opposed all attempts by Caroline to acquire anything more than the most rudimentary education, and resented even the occasional violin lesson given by her father. Caroline tried to acquire some ability in needlework from a kindly neighbour, but for this they had to meet at dawn, for at 7 a.m. her household chores would begin… eventually she was given grudging permission to attend a dressmaking school, but this lasted only a few weeks, after which she resumed her role of household drudge" (Hoskin).

Eventually, Caroline was rescued by her brother, William, who had himself escaped the dismal household, and French occupation in Hanover, by becoming an organist in Bath, England. He "gave [Caroline] two singing lessons daily, sometimes three, as well as teaching her English and arithmetic, and she had coaching from a dancing-mistress to give her the stage presence required for oratorios. Before long she was appearing at Bath or Bristol as many as five nights a week, singing leading soprano parts in works such as Messiah, Samson, and Judas Maccabaeus" (Hoskin).

For William, his interest in heavenly music soon gave way to an obsession with "the construction of the heavens". He began by visiting opticians and then fixated on building his own telescope. By the summer of 1775, Caroline was "taken up with copying Music and practising, besides attendance on my Brother when polishing [telescopic mirrors], that by way of keeping him alife, I was even obliged to feed him by putting the

PHILOSOPHICAL

TRANSACTIONS.

I. *An Account of a new Comet. In a Letter from Miſs* Caroline Herſchel *to* Charles Blagden, *M. D. Sec. R. S.*

Read Nov. 9, 1786.

SIR,

IN conſequence of the friendſhip which I know to exiſt between you and my Brother, I venture to trouble you in his abſence with the following imperfect account of a comet.

The employment of writing down the obſervations, when my Brother uſes the 20-feet reflector, does not often allow me time to look at the heavens; but as he is now on a viſit to vitals by bits into his mouth". The struggle was made all worthwhile, when in 1781 William discovered Uranus, which secured him, and his now assistant, Caroline, Royal patronage and a move of house to Datchet, near Windsor Castle.

Caroline's principal astronomical task was to look for comets, which she did through her own dedicated telescope, the "sweeper" which William had constructed especially for her. She became famous as the discoverer, or co-discoverer, of "no fewer than eight comets, four with the sweeper made in 1783, three with its successor, and the last, found in 1797, with the naked eye. However, her earliest sweeps, in the winter of 1782–3, yielded not comets but comet-like nebulae, to add to the hundred or so already known. Later in 1783 she was to discover the companion to the Andromeda nebula... Caroline was an indispensable member of a most remarkable team that, in one of the greatest campaigns known to observational astronomy, swept the whole of the visible sky. In twenty years of unremitting toil, brother and sister increased the number of known nebulae from about a hundred to 2500. In 1787 Caroline too received a royal pension, of £50 a year; revealingly, this was the first money that she felt she could consider her own... 1796 [William] persuaded Caroline to assemble a list of these errors, a task that took her twenty months. Her list, with an index to Flamsteed's observations, was published by the Royal Society in 1798" (Hoskin).

Fig. 1.

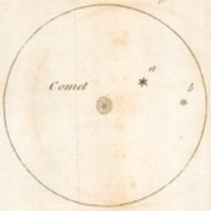


Fig. 2.

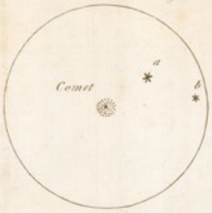


Fig. 3.

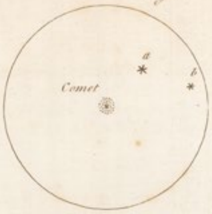


Fig. 4.

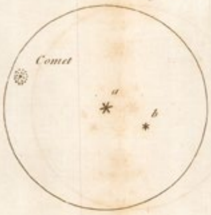


Fig. 5.

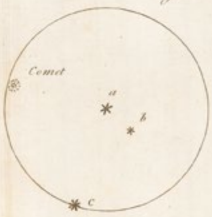
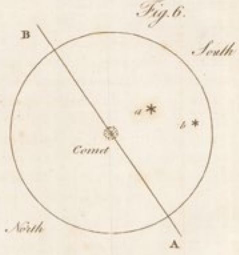


Fig. 6.


B
South
a
b
Comet
North
A

Basire sc.

Selina updates Australia

8 **HALL, Selina; and Sidney HALL**

Australia.

Publication
[London, Longman, c.1830].

Description
Engraved map, with contemporary hand-colour in outline.

Dimensions
430 by 520mm (17 by 20.5 inches).

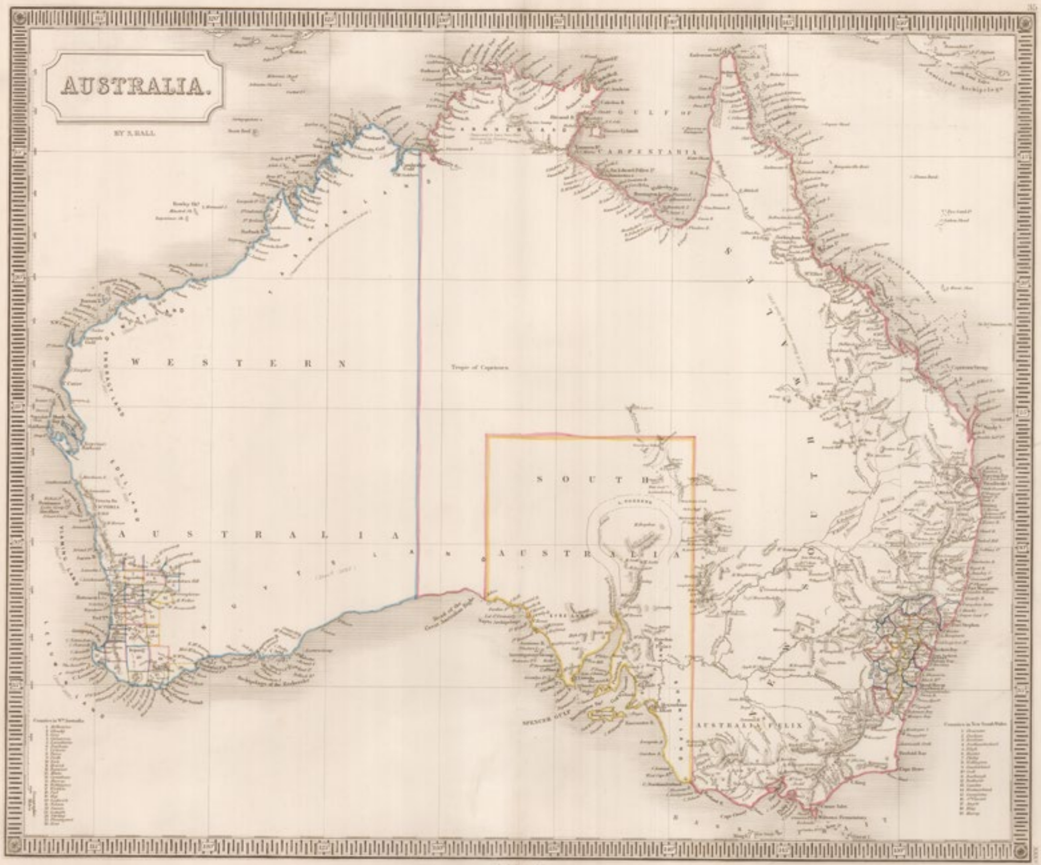
A large map of Australia showing the country's early divisions prior to the creation of Victoria, Queensland, or the Northern Territories. New South Wales dominates the eastern half of the continent, while the centre is almost entirely unknown.

From Sidney Hall's 'New General Atlas', which was published in multiple editions between 1830 and about 1860 by various iterations of the Longman firm of publishers. Editions after Sidney's death in 1831 were frequently updated by Selina Hall to show contemporary developments, for example the creation and division of Victoria and Queensland.

Sidney Hall (1788–1831) engraved maps for William Faden, Aaron Arrowsmith, and Chapman & Hall. From at least 1809 he workshop was at 5 Vine Street, Piccadilly, London. By 1814, in partnership with Michael Thomson, his business had moved to Bury Street, London. Hall is credited with "almost certainly" being the first engraver to use steel plates in map engraving (Beinecke Library, Yale, online).

Hall died at the tragically young age of 42, "and yet his engraved maps continued to appear. New works engraved by Sidney Hall were published for decades after his death. Selina Hall (1782-1853), who conveniently shared a first initial with her husband, simply continued to engrave maps and signed them "S. Hall" (this as well as the date can be used to distinguish them from her husband's work, since he usually signed "Sid.y Hall"), thus continuing to benefit from an established name.

Engraving is a highly skilled job, and Selina Hall cannot have learnt it all at once on her husband's death. It is far more likely that she was an active participant in the business throughout their marriage, but that her contribution was not acknowledged. She was certainly known to her husband's former business partner, Michael Thomson, who died in 1816, since she is mentioned in his will, so she may have been involved in the map production process for even longer. Selina lived for over 20 years after her husband's death, continuing to engrave maps, and when she died the business passed to her nephew Edward Weller; she may have been involved in his training" (Boldeian Library online).


AUSTRALIA.
BY S. HALL
WESTERN
AUSTRALIA
SOUTH
AUSTRALIA
GULF OF
CARPENTARIA
Tropic of Capricorn
SPENCER GULF
AUSTRALIA FELIX
Counties in Wn. Australia
Counties in New South Wales

London, Longman & Co.

Selina updates the United States

9 **HALL, Selina; and Sidney HALL**

United States.

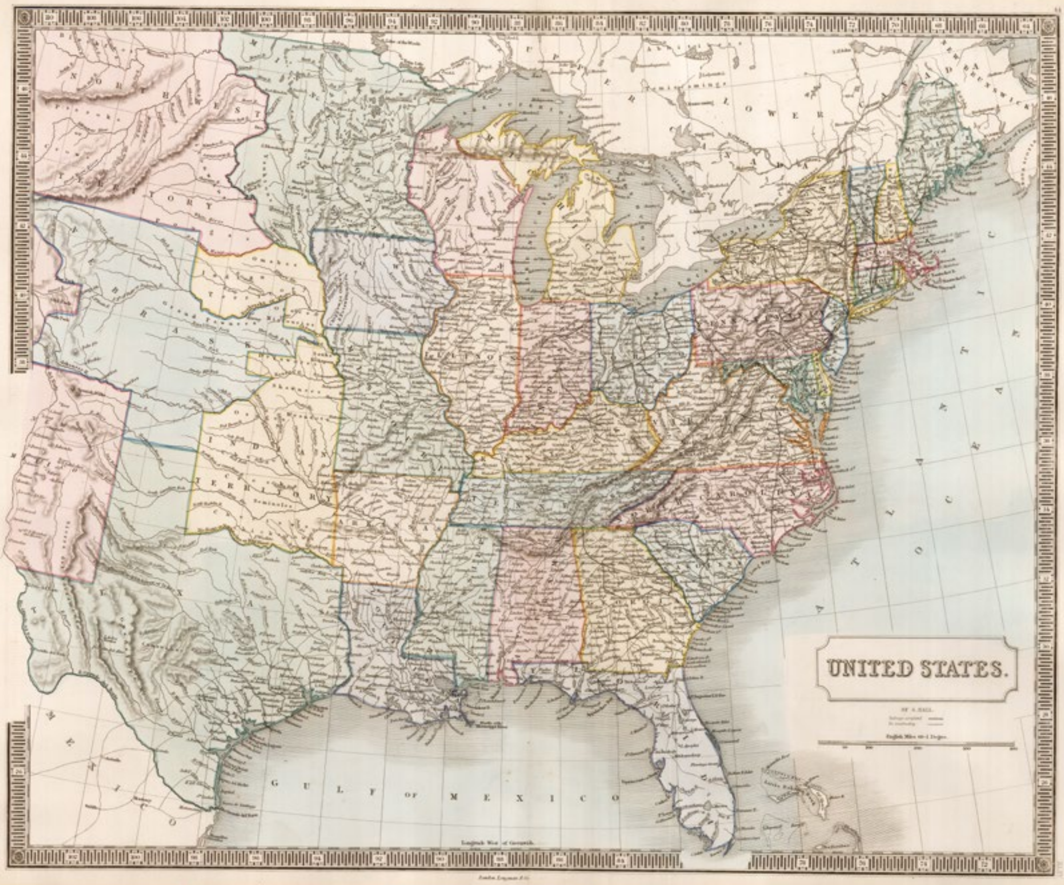
Publication
[London, Longman, after 1845].

Description
Engraved map, with contemporary hand-colour in full.

Dimensions
420 by 510mm (16.5 by 20 inches).

A large map of the United States as far west as Texas and the Dakotas. Minnesota, Nebraska, and Indian Territory are still oversized, unorganized territories with unusual border configurations. Railways, both proposed and constructed, are marked. The date is based on the fact that Wisconsin did not gain statehood until 1848, and Texas was not annexed by the United States until 1845.

From Sidney Hall's 'New General Atlas', which was published in multiple editions between 1830 and about 1860 by various iterations of the Longman firm of publishers. Editions after Sidney's death in 1831 were frequently updated by Selina Hall to show contemporary developments, for example the creation and division of Victoria and Queensland.


UNITED STATES.
BY S. HALL.
English Miles 69·5 Degree.
GULF OF MEXICO
ATLANTIC OCEAN
MEXICO
LOWER CANADA
UPPER CANADA
NEW BRUNSWICK
NOVA SCOTIA
INDIAN TERRITORY
NEBRASKA
TEXAS
Longitude West of Greenwich

London: Longman & Co.

Steel's rare chart of the Indian Ocean

10 **STEEL, [Penelope]; NORIE, J[ohn] W[illiam]**

To the Honourable the Court of Directors of the United Company of Merchants, Trading to the East Indies. Steel's New Chart of the Indian and Pacific Oceans; from the Cape of Good Hope to Canton and New Zeeland.

Publication
London, J. W. Norie and Co., July 1832; Corrected to 1833.

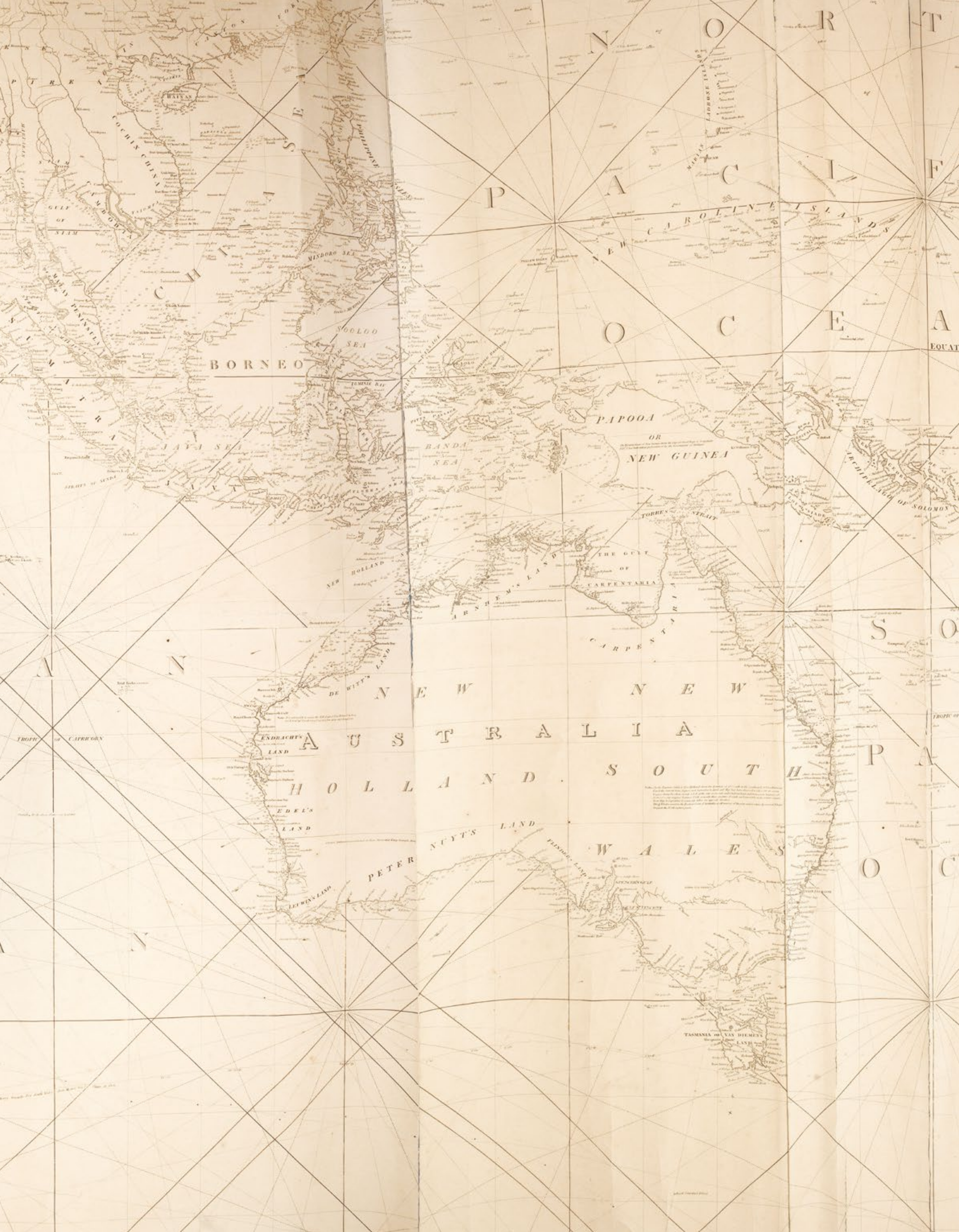
Description
Engraved chart on four sheets, mounted on blue paper, separation to old fold.

Dimensions
1330 by 1000mm (52.25 by 39.25 inches).

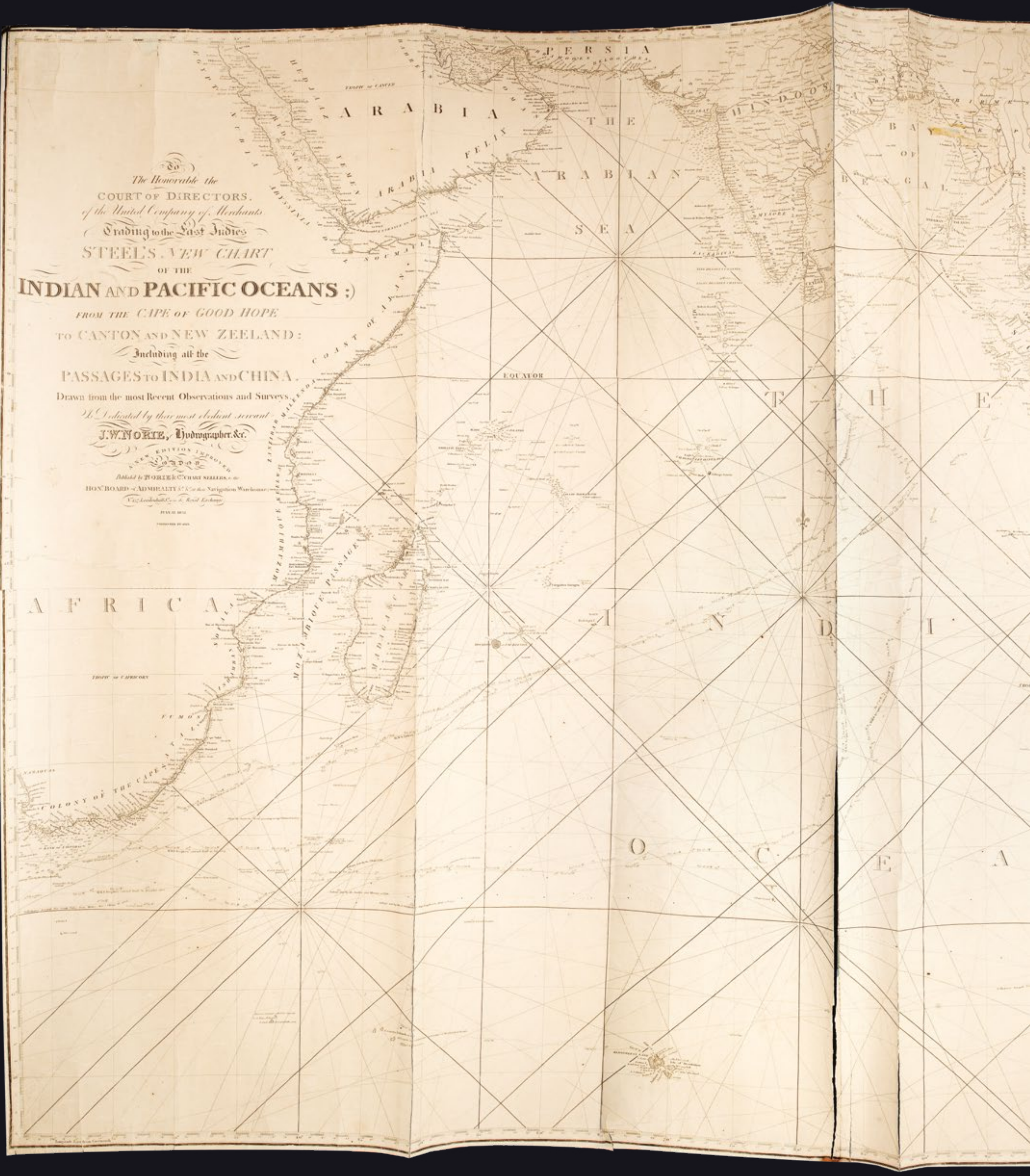
During the nineteenth century, the British Empire was approaching its peak, with territories and subjects spanning the entire globe. As such, this period saw a huge surge in the production and purchase of nautical instruments and navigational charts. To meet this demand, British mapmakers and sellers began to publish charts backed on distinctive blue manila paper, which strengthened them for practical use aboard a ship, as well as cutting costs, as the charts could be printed on lower-quality paper and then inexpensively reinforced with the ubiquitous blue backing. These charts came to be known as 'Bluebacks', and remained popular until the late nineteenth century, when the British Admiralty began issuing superior, uniform charts on high-quality paper.

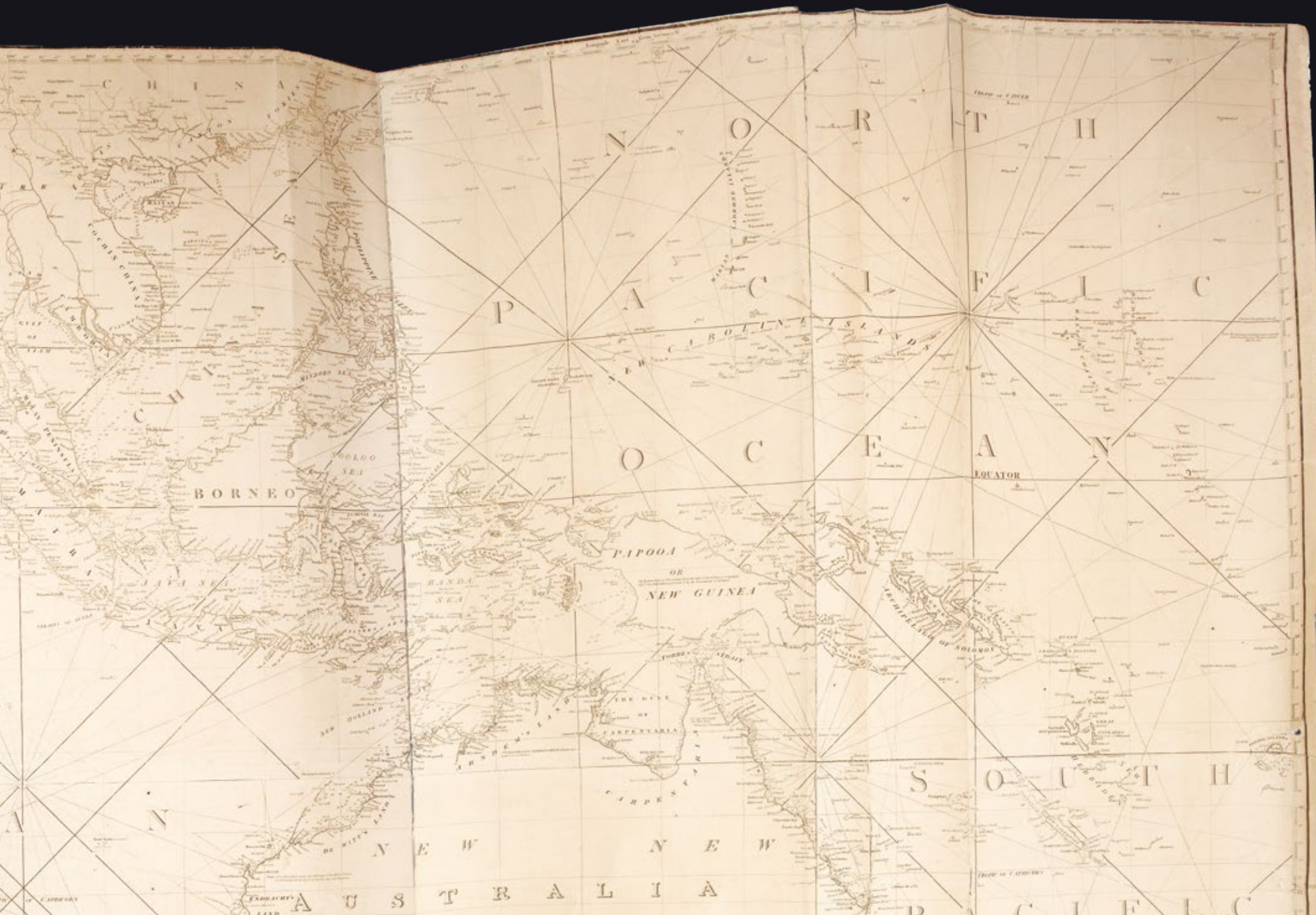
One of the lesser-known producers of 'Bluebacks' was Penelope Steel, the widow of noted publisher, engraver, instrument-seller, bookseller and bookbinder, David Steel, who continued his business after his death. Shortly after, Penelope married William Mason and moved the business to Tower. Hill. During the 1810s a lack of new charts and the loss of a valuable employee to the rival Laurie and Whittle firm, Penelope entered into a new partnership with Stanley Goddard who later became her third husband. By 1819, however, Steel and Goddard went bankrupts and their stock was acquired by John Norie. Norie (1772-1843) was an important hydrographer, chartmaker and publisher, as also a writer on navigation and publisher of nautical manuals, as well as selling globes and all manner of nautical instruments. He was agent for the sale of Admiralty charts, and chart seller to the East India Company and Trinity House.

Norie continued to publish Steel's charts including the present four-sheet blueback chart of the Indian and Pacific Oceans, focusing on the trading routes from the east coast of Africa to Canton and New Zealand. Depth soundings and toponyms are given across the map; underwater obstacles are also identified and there are warnings about "little known" areas. It also includes an early label of "Town" at Singapore. Extremely rare: the National Library of Australia holds an examples of the 1813 edition of 1813 and also the upper half of the 1844 edition, but no other institutional copies have been located.



CANTON
HAINAN
COCHIN CHINA
SIAM
GULF OF SIAM
CAMBODIA
CHINA SEA
PHILIPPINE ISLANDS
MINDORO SEA
MALAY PENINSULA
SUMATRA
BORNEO
SOOLOO SEA
TOMINIE BAY
JAVA SEA
JAVA
STRAITS OF SUNDA
BANDA SEA
LADRONE ISLANDS
MARIAN ISLANDS
NEW CAROLINE ISLANDS
N O R T
P A C I F
O C E A
EQUAT
PAPOOA OR NEW GUINEA
ARCHIPELAGO OF SOLOMON
TORRES STRAIT
THE GULF OF CARPENTARIA
ARNHEM'S LAND
NEW HOLLAND
CARPENTARIA
DE WITT'S LAND
NEW NEW
AUSTRALIA
ENDRACHTS LAND
HOLLAND. SOUTH
EDEL'S LAND
PETER NUYTS LAND
LEUWIN'S LAND
FLINDERS LAND
WALES
SPENCER'S GULF
TASMANIA OR VAN DIEMENS LAND
TROPIC OF CAPRICORN
TROPIC OF
A N
N
S O
P A
O C


To
The Honorable the
COURT OF DIRECTORS,
of the United Company of Merchants
Trading to the East Indies
STEEL'S NEW CHART
OF THE
INDIAN AND PACIFIC OCEANS;
FROM THE CAPE OF GOOD HOPE
TO CANTON AND NEW ZEELAND:
Including all the
PASSAGES TO INDIA AND CHINA.
Drawn from the most Recent Observations and Surveys,
Is Dedicated by their most obedient servant
J. W. NORIE, Hydrographer, &c.
A NEW EDITION IMPROVED
LONDON
Published by NORIE & Co. CHART SELLERS, to the
HON. BOARD of ADMIRALTY &c. &c. at their Navigation Warehouse,
No. 157, Leadenhall Street, near the Royal Exchange.
PERSIA
ARABIA
ARABIA FELIX
YEMEN
HEDJAZ
EGYPT
NUBIA
RED SEA
ABYSSINIA
OMAN
THE ARABIAN SEA
HINDOOSTAN
BAY OF BENGAL
MYSORE
CEYLON
TROPIC OF CANCER
EQUATOR
COAST OF AJAN
ZANGUEBAR
MOZAMBIQUE
MOZAMBIQUE PASSAGE
MADAGASCAR
SOFALA
AFRICA
TROPIC OF CAPRICORN
FUMOS
COLONY OF THE CAPE
THE INDIAN OCEAN



CHINA
GULF OF SIAM
CHINA SEA
BORNEO
SOOLOO SEA
JAVA SEA
BANDA SEA
NORTH PACIFIC OCEAN
NEW CAROLINE ISLANDS
EQUATOR
PAPOOA OR NEW GUINEA
ARCHIPELAGO OF SOLOMON
TORRES STRAIT
THE GULF OF CARPENTARIA
ARNHEM'S LAND
CARPENTARIA
NEW HOLLAND
DE WITT'S LAND
ENDRACHT'S LAND
EDEL'S LAND
LEUWIN'S LAND
PETER NUYTS LAND
NEW AUSTRALIA
HOLLAND. SOUTH
NEW SOUTH WALES
SOUTH PACIFIC OCEAN
TROPIC OF CAPRICORN
TROPIC OF CANCER
NEW ZEALAND

A puzzling gift

11 **DOPTER, Jules Émile**

Atlas.

Publication
Paris, Émile Dopter, 29 rue Madame, [1856]-1903.

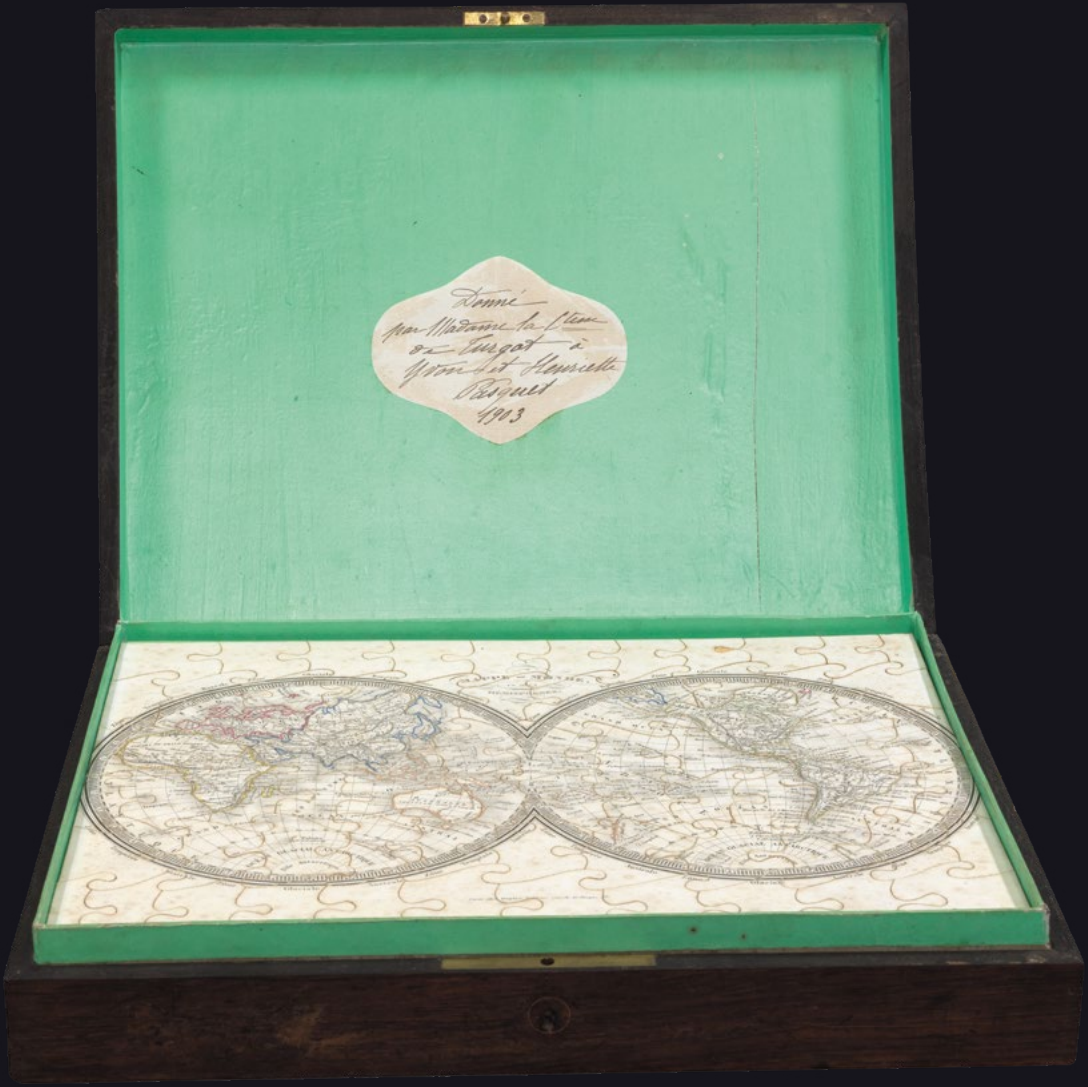
Description
Seven lithograph puzzle maps, original hand-colour in outline, housed in contemporary mahogany box, with decorative marked rules and lettering, two pieces lacking in France, and two North America.

Dimensions
285 by 385mm (11.25 by 15.25 inches).

References
Lefebvre, Nicholson-Smith, 'The production of space' (Blackwell: Oxford, 1991); Norcia, 'Puzzling Empire: Early Puzzles and Dissected Maps as Imperial Heuristics', (Children's Literature, 2009); Norgate, 'Cutting borders: Dissected maps and the origins of the jigsaw puzzle', (The Cartographic Journal, 2007).

Presented in a decorative wooden case, these geographical jigsaws were given as an extravagant gift to two girls, Yvon and Henriette Pasquet, according to the dedicatory panel inside. The emerging children's culture of the mid-eighteenth century produced toys and games that were often as ornamental as they were practical, and the demand for increasingly unique and interesting items eventually resulted in such puzzles. Although John Spilsbury is widely credited with creating the first dissected map in 1766, there are earlier references to these sorts of geographical games made by a Madame de Beaumont in France, where this example was also produced. Jean Vincent Marie Dopter became a prominent Parisian lithographer and printer in the 1830s, specialising in religious and political pamphlets, which were considered by some so outrageous that he was eventually sentenced to ten days in prison. Far less controversially, he also produced these puzzle maps, which earned him medals and honourable mentions at various exhibitions, including l'Exposition universelle de Paris, and the Great Exhibition in London. The dissected maps show named countries, exploration routes and the relief of major mountain ranges, making the puzzles an effective educational aid, and a literalisation of Lefebvre's claim that "knowledge of spaces wavers between description and dissection".

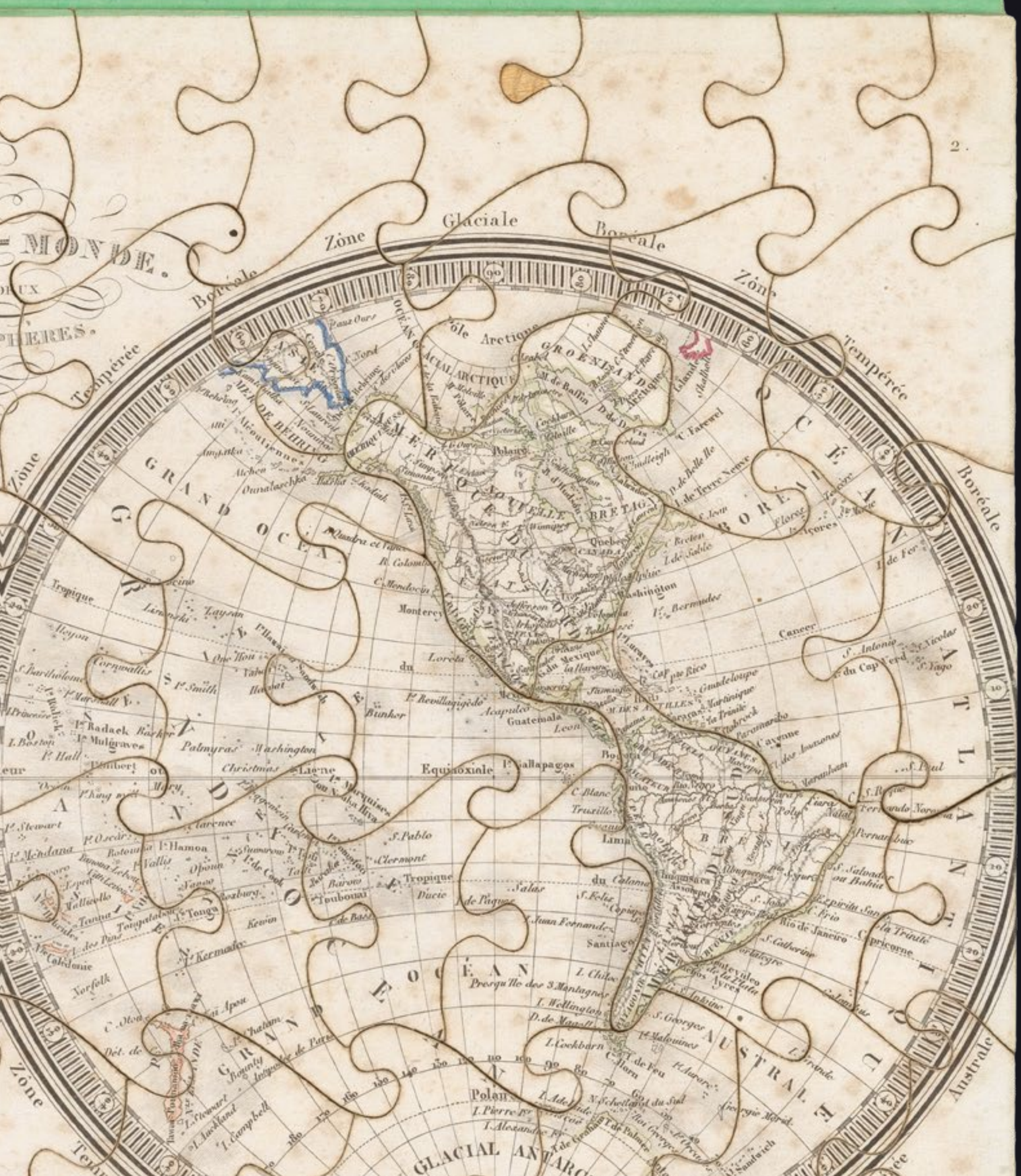
Such ornate sets were predictably expensive, and became popular mainly with the elite, among whom these items were made into symbols of status. In Jane Austen's 1814 novel 'Mansfield Park', for example, the poor protagonist is mocked by her wealthy cousins because she "cannot put the map of Europe together". This set of games, then, would have been an extravagant present, worthy of the Countess de Turgot who gifted them. The wooden box contains seven jigsaws, displaying one world map, a map of France divided into departments, and maps of the continents of Europe, North America, South America and Asia. The engraved maps were printed, hand-coloured, glued onto card, and then dissected into 70 to 80 pieces. They are separated by boards bordered with the same green paper that lines the inside of the box. They all identify Dopter's address as 58 rue de la Harpe, apart from the map of Europe, which lists number 66 as its place of publication. As is the inevitable fate of almost all toys, a few parts have been lost, leaving two holes in the maps of North America and France. Other examples of Dopter's Atlas set also contain a puzzle depicting Oceania, which is not included here. We have been able to trace only two institutional examples of this set of geographical puzzles, at the State Library of New South Wales and the Bibliothèque nationale de France.



Donné
par Madame la Ctesse
de Turgot à
Yvon et Henriette
Pasquet
1913

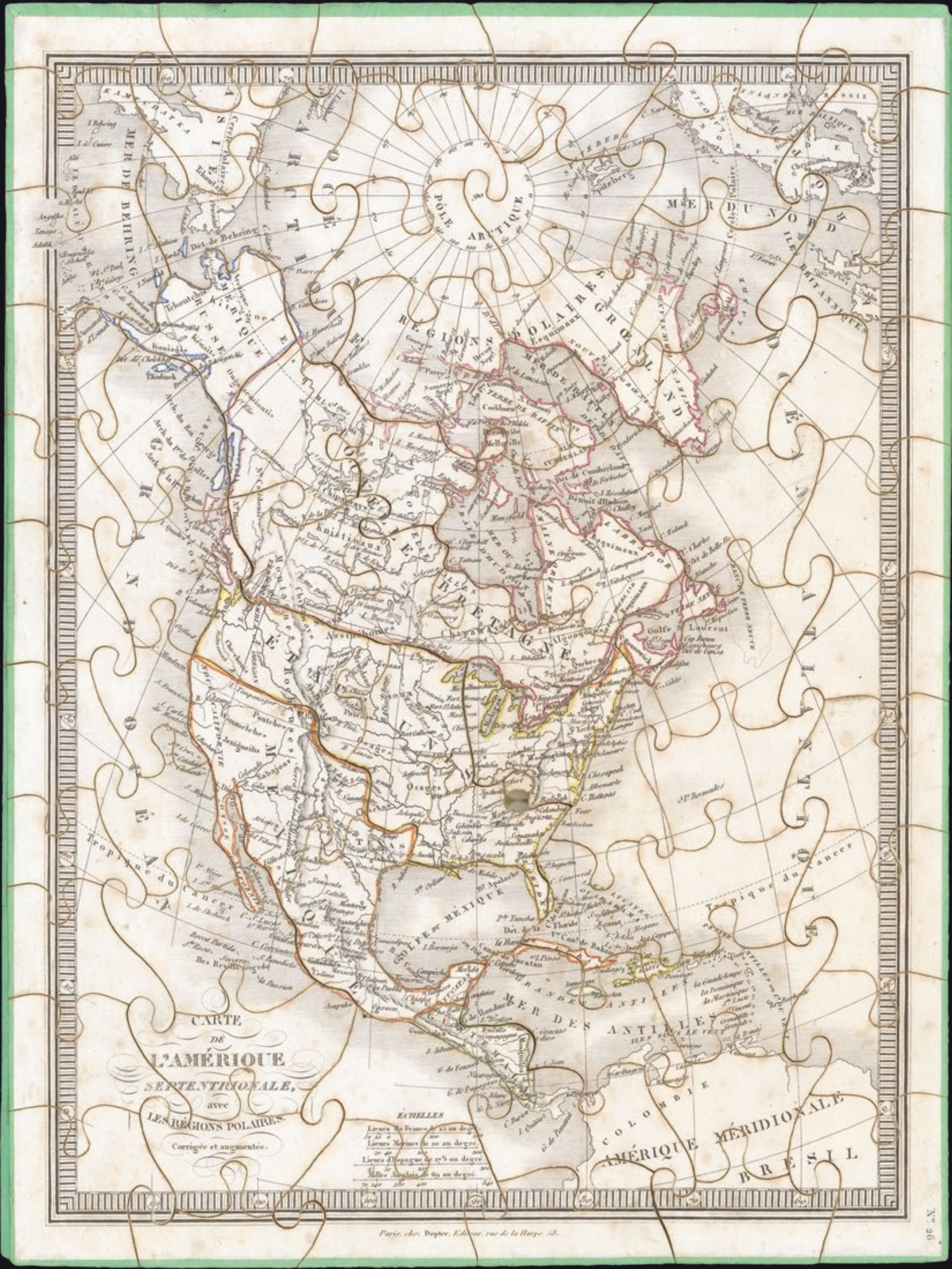
MAPPE-
EN
HÉMISP
Zône Glaciale Boréale
Zône Tempérée Boréale
Pôle Arctique
OCÉAN GLACIAL ARCTIQUE
Spitzberg
OCÉAN
EUROPE
MER MÉDITERRANÉE
AFRIQUE
SAHARA OU GRAND DÉSERT
Tombouctou
GOLFE DE GUINÉE
Equateur
Ascension
S.te Hélène
Tropique
le Cap
Hottentots
Madagascar
Capricorne
B. des Chiens Marins
AUSTRALIE
NOUVELLE HOLLANDE
N.lle Galles Méridionale
Van Diemen ou Tasmanie
Maldives
Ceylan
Chagos
I. Rodrigue
Amsterdam
S.t Paul
T.re de Kerguelen
OCÉAN INDIEN
GRAND OCÉAN AUSTRAL
OCÉAN ATLANTIQUE
Polaire
T.re d'Enderby
OCÉAN GLACIAL ANTARCTIQUE
Pôle Antarctique
Bonin Sima
I. Magellan
Cancer
Marshall
Mariannes
Carolines
Zône Tempérée Australe
Zône Glaciale Australe
Paris chez Dopter, Éditeur

2.



-MONDE.
DEUX
PHÈRES.
Zône Glaciale Boréale
Zône Tempérée Boréale
Pôle Arctique
OCÉAN GLACIAL ARCTIQUE
GROENLAND
AMÉRIQUE
NOUVELLE BRETAGNE
GRAND OCÉAN
OCÉAN ATLANTIQUE BORÉAL
Cancer
Tropique
Équinoxiale
OCÉAN AUSTRAL
Capricorne
Tropique
OCÉAN GLACIAL ANTARCTIQUE
Pôle Antarctique
Zône Tempérée Australe
Zône Glaciale Australe

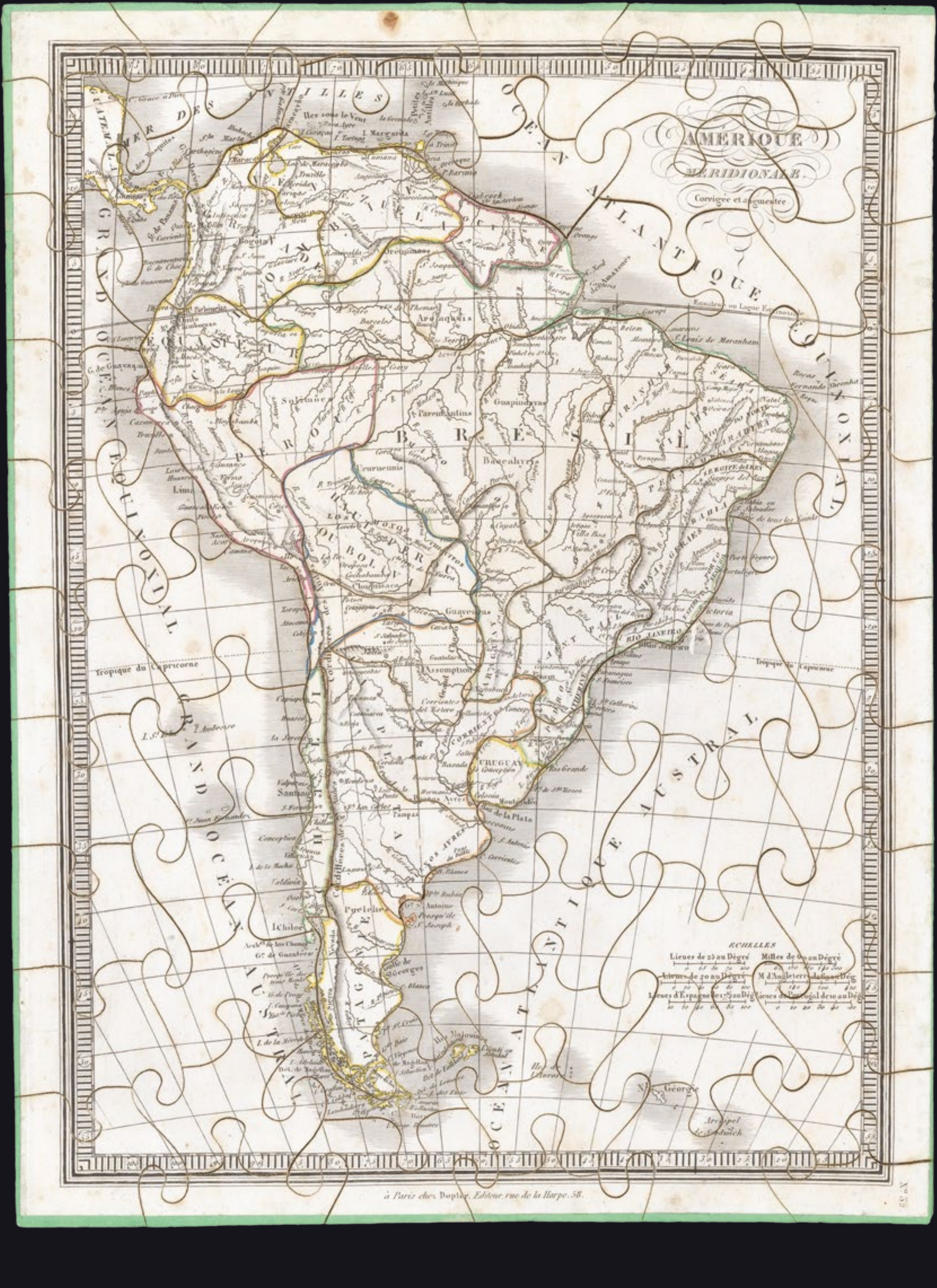
r, rue de la Harpe, 38.


PÔLE ARCTIQUE
RÉGIONS POLAIRES
GROENLAND
MER DE BEHRING
MER DU NORD
ILES BRITANNIQUES
AMÉRIQUE RUSSE
BRETAGNE
ÉTATS UNIS
MEXIQUE
GOLFE DU MEXIQUE
MER DES ANTILLES
Tropique du Cancer
COLOMBIE
AMÉRIQUE MÉRIDIONALE
BRESIL
ÉCHELLES
Lieues de France de 25 au degré
Lieues Marines de 20 au degré
Lieues d'Espagne de 17½ au degré
Milles Anglais de 69 au degré

CARTE
DE
L'AMÉRIQUE
SEPTENTRIONALE,
avec
LES RÉGIONS POLAIRES.
Corrigée et augmentée.

Paris, chez Dopter, Éditeur, rue de la Harpe 58.

N.° 26


MER DES ANTILLES
OCÉAN ATLANTIQUE ÉQUINOXIAL
GRAND OCÉAN ÉQUINOXIAL
GRAND OCÉAN AUSTRAL
OCÉAN ATLANTIQUE AUSTRAL
COLOMBIE
VENEZUELA
GUYANE
ÉQUATEUR
PÉROU
BOLIVIA
BRÉSIL
URUGUAY
PATAGONIE
Tropique du Capricorne
Équateur ou Ligne Équinoxiale
ECHELLES
Lieues de 25 au Dégré
Milles de 60 au Dégré
Lieues de 20 au Dégré
M. d'Angleterre de 69 au Deg.
Lieues d'Espagne de 17½ au Dég.
Lieues de Portugal de 18 au Dég.

AMÉRIQUE
MÉRIDIONALE.
Corrigée et augmentée

à Paris chez Dopter, Editeur, rue de la Harpe. 58.

N.º 23

Geology Personified

12 W[EBBER] C[atherine]. M[ary]

Geology, Familiarly Illustrated by C. M. W.

Publication
London, J. B. Goodinge, 21 Aldergate Street, 1859.

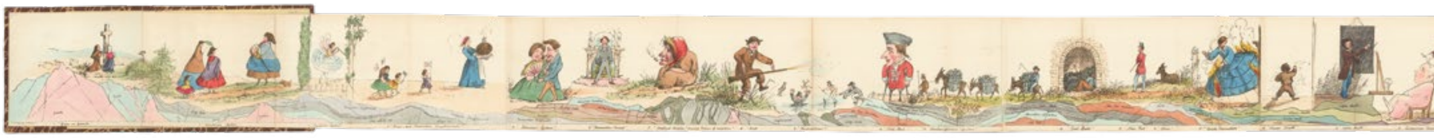
Description
Oblong octavo (130 by 150mm), continuous strip view, measuring 320 cm in length, containing thirty-one numbered and captioned hand-coloured lithographed scenes illustrating geology in a humorous vein, imprint label pasted to inside of back cover, original marbled covers with publisher's label.

References
Abbey, Life, 607.

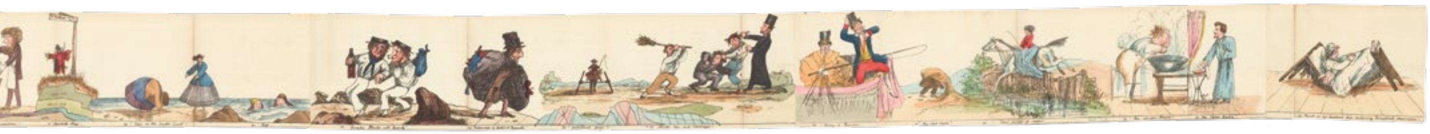
Humorous panorama illustrating geological features and stratification.

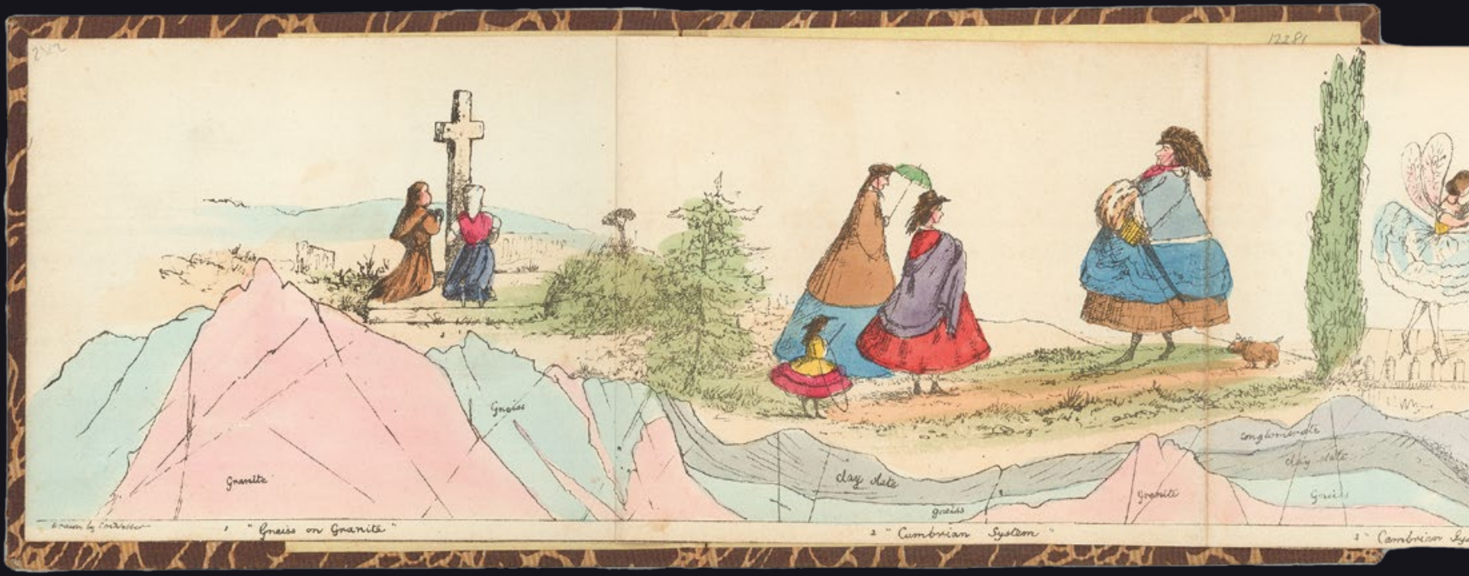
Catherine Mary Webber (1831-1900), the wife of the Anglican clergyman Rev. William Fynes Webber, is known to have published three comical illustrated works such as this. The other two are 'The Experiences of an Amateur Artist' published in 1858 and 'Miss Scratchley, an Amateur in Art and Crinoline' in 1863. She also contributed to 'The English Woman's Journal' under the moniker 'A Clergyman's Wife.'

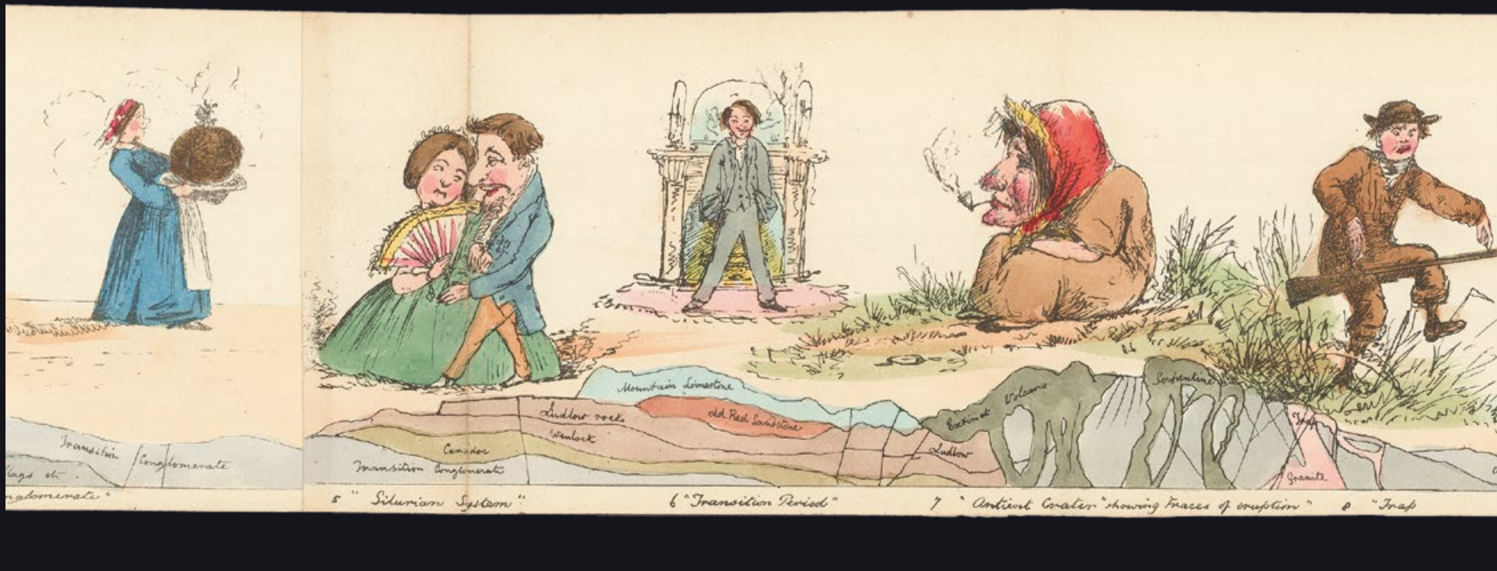
The scenes are captioned:
1. "Gneiss on Granite".
2. "Cumbriam System".
3. "Cambriam System".
4. "Flags, and Transition Conglomerate".
5. "Silurian System".
6. "Transition Period".
7. "Antient Crater showing traces of eruption".
8. "Trap".
9. "Serpentine".
10. "Old Red".
11. "Carboniferous System".
12. "Coal Beds"
13 "New Red".
14. "Lias".

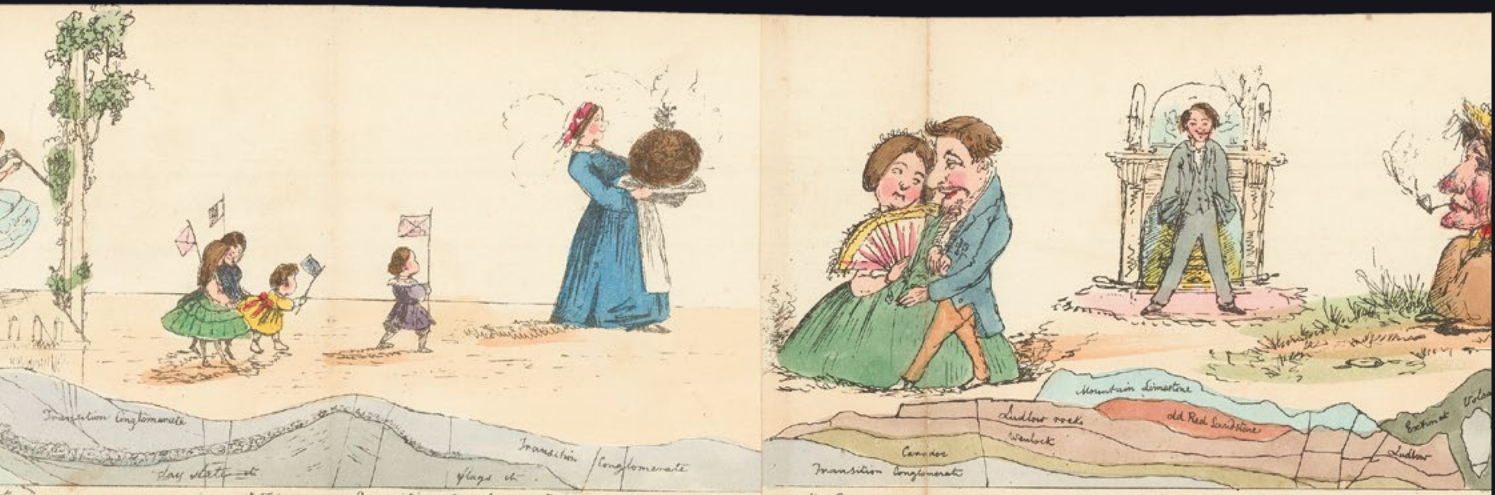


15. Oolite Formation”.
16. “Lower Chalk”.
17. “Upper Chalk”.
18. “Extensive Denudation”.
19. “Kentish Rag”.
20. “Slips on the South Coast”.
21. “Dip”.
22. “Erratic Blocks with Quartz”.
23. “Protrusion of Antient Deposits”.
24. “Antidinal Axes”.
25. “Strike, Dip, and Cleavage”.
26. “Valley of Elevation”.
27. “Bag-shot sand”.
28. “Clear proofs of Metal”.
29. “The London Basin”.
30. “The Paris Basin”.
31. “Fault in an Antient Bed, containing Terrestrial Mammalia”.

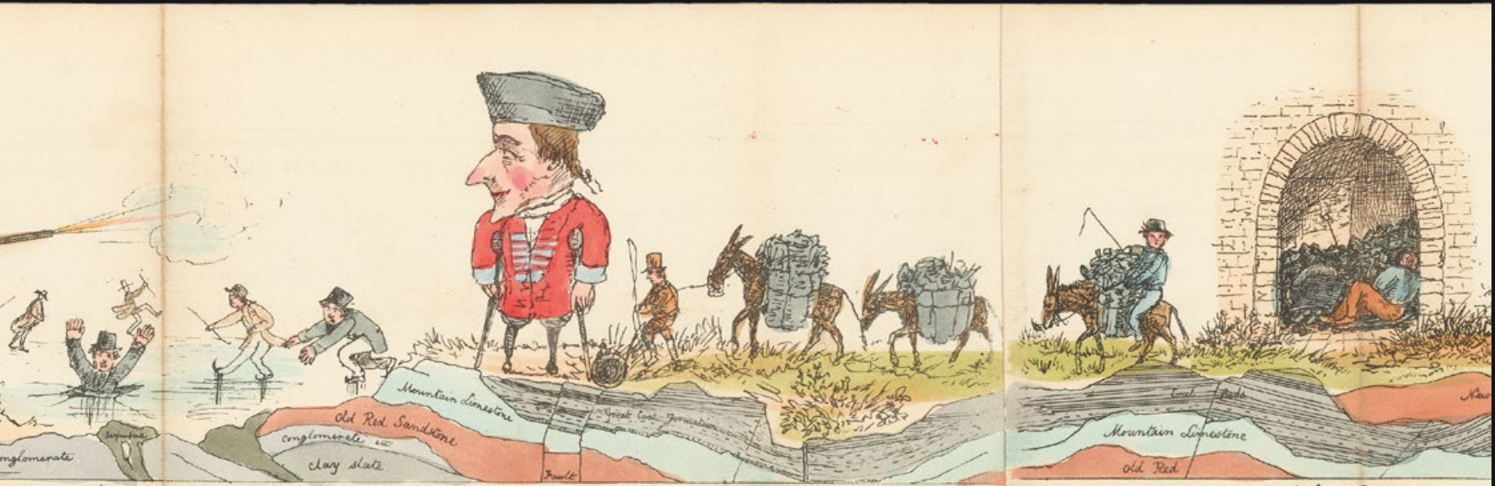



Granite
Gneiss
Clay slate
Gneiss
Granite
Conglomerate
Clay slate
Gneiss
Drawn by Cont Walker
1 "Gneiss on Granite"
2 "Cambrian System"
3 "Cambrian Sys


Transition
Conglomerate
flags etc
nglomerate"
Mountain Limestone
Ludlow rocks
Old Red Sandstone
Wenlock
Caradoc
Transition Conglomerate
Extinct Volcano
Serpentine
Ludlow
Trap
Granite
5 "Silurian System"
6 "Transition Period"
7 "Antient Crater" showing traces of eruption"
8 "Trap


Transition Conglomerate
clay slate &c
flags &c
Transition
Conglomerate
Mountain Limestone
Ludlow rocks
Old Red Sandstone
Wenlock
Caradoc
Transition Conglomerate
Extinct Volca
Ludlow

ation" 4 "Flags, and Transition Conglomerate" 5 "Silurian System" 6 "Transition Period" 7 "Antient


Serpentine
onglomerate
Mountain Limestone
Old Red Sandstone
conglomerate &c
clay slate
Great Coal Formation
Fault
Coal Beds
Mountain Limestone
Old Red
New

9 "Serpentine" 10 "Old Red" "11 Carboniferous System" 12 "Coal Beds"

“A present from the Isle of Man” (front cover)

13 **[HARVEY, William, as “ALEPH’; after Eliza Jane TENNANT, otherwise known as “Lilian LANCASTER”]**

Geographical Fun; being Humorous Outlines of Various Countries. With an Introduction and descriptive lines.

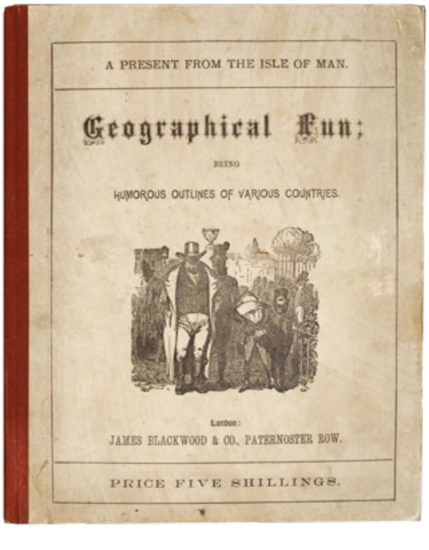
Publication
London, Hodder and Stoughton, 27, Paternoster Row, [c.1868].

Description
Quarto (275 by 235mm). 12 colour printed lithographed maps, with text beneath; original publisher’s pictorial grey paper boards, ochre cloth spine.

References
Baynton-Williams, ‘Curious Map Book’, pages 170-173; see Manasek #115; Slowther, ‘Map Collector’, 16, pages 48-50.

A series of twelve humerous allegorical maps of Europe depicting the political landscape of the time in human form, the work of a “young lady... in her fifteenth year... seeking to amuse a brother confined to his bed by illness” (’Introduction’). Eliza Jane Tennant, later known by her stage name as Lilian Lancaster, created the original drawings for these maps, when she was a young girl, to amuse her sick brother.

William Henry “Aleph” Harvey (1796-1866) was a London doctor and journalist. He was also known for writing and illustrating works for children. He stated as the purpose to create the work that “If these geographical puzzles excite the mirth of children; the amusement of the moment may lead to the profitable curiosity of youthful students, and imbue the mind with a healthful taste for an acquaintance with foreign lands. No history, no journal can be understood without a knowledge of maps, and good service is done when we make such information more easy and agreeable”.



A PRESENT FROM THE ISLE OF MAN.

Geographical Fun;

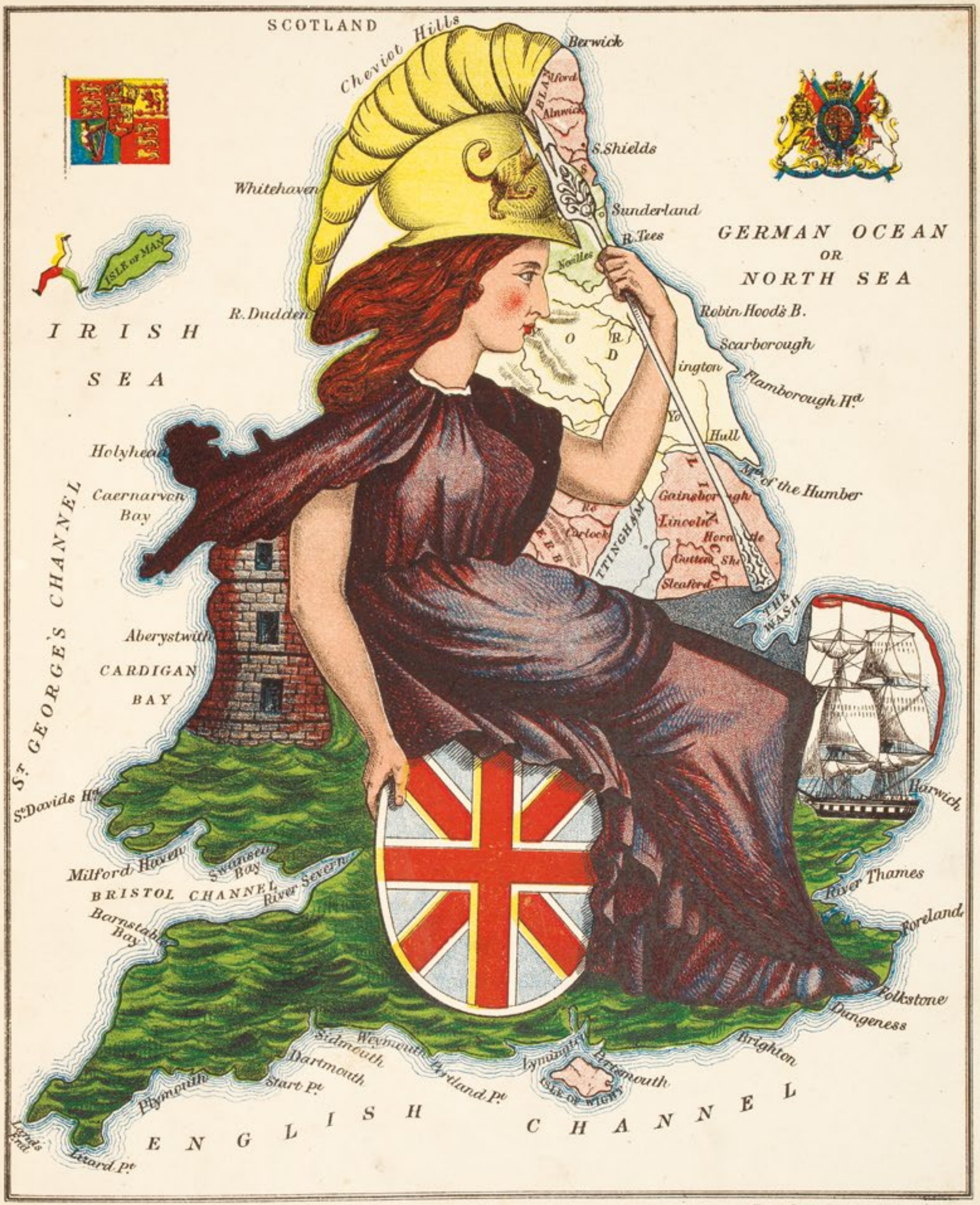
BEING

HUMOROUS OUTLINES OF VARIOUS COUNTRIES.

London:
JAMES BLACKWOOD & CO., PATERNOSTER ROW.

PRICE FIVE SHILLINGS.

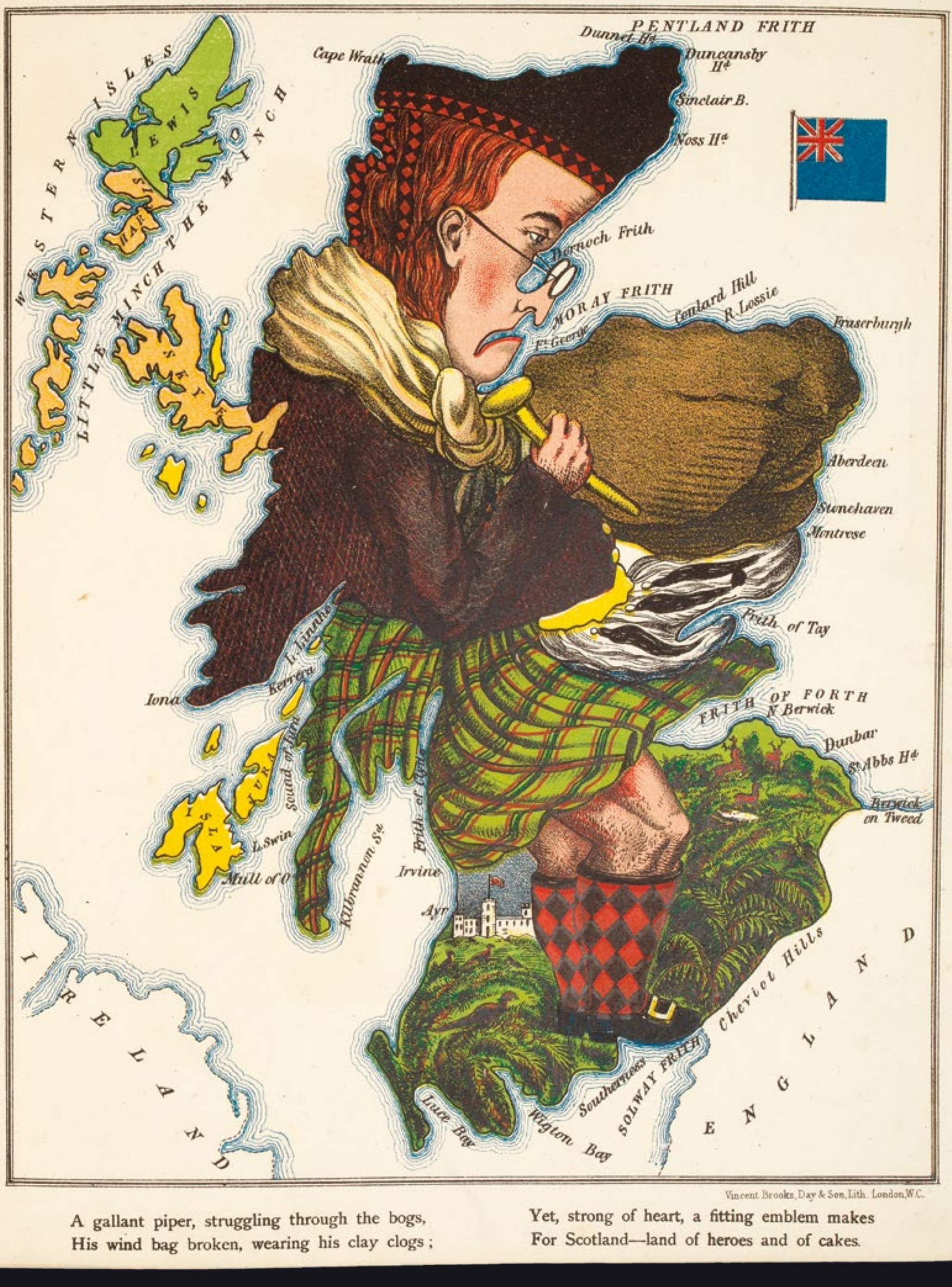
ENGLAND.


SCOTLAND
Cheviot Hills
Berwick
Alnwick
S.Shields
Whitehaven
Sunderland
R.Tees
GERMAN OCEAN OR NORTH SEA
ISLE OF MAN
R.Dudden
Robin Hood's B.
Scarborough
IRISH SEA
Flamborough Hd.
Hull
Holyhead
Mth. of the Humber
Caernarvon Bay
Gainsborough
Lincoln
Sleaford
ST. GEORGE'S CHANNEL
Aberystwith
CARDIGAN BAY
THE WASH
Harwich
St. Davids Hd.
Milford Haven
Swansea Bay
BRISTOL CHANNEL
River Severn
River Thames
Barnstaple Bay
Foreland
Folkstone
Dungeness
Sidmouth
Weymouth
Dartmouth
Brighton
Lymington
Portsmouth
Start Pt.
Portland Pt.
ISLE OF WIGHT
Plymouth
Lands End
Lizard Pt.
ENGLISH CHANNEL

Vincent Brooks, Day & Son, Lith. London, W.C.

Beautiful England,—on her Island throne,—
Grandly she rules,—with half the world her own;
From her vast empire the sun ne'er departs:
She reigns a Queen—Victoria, Queen of Hearts.

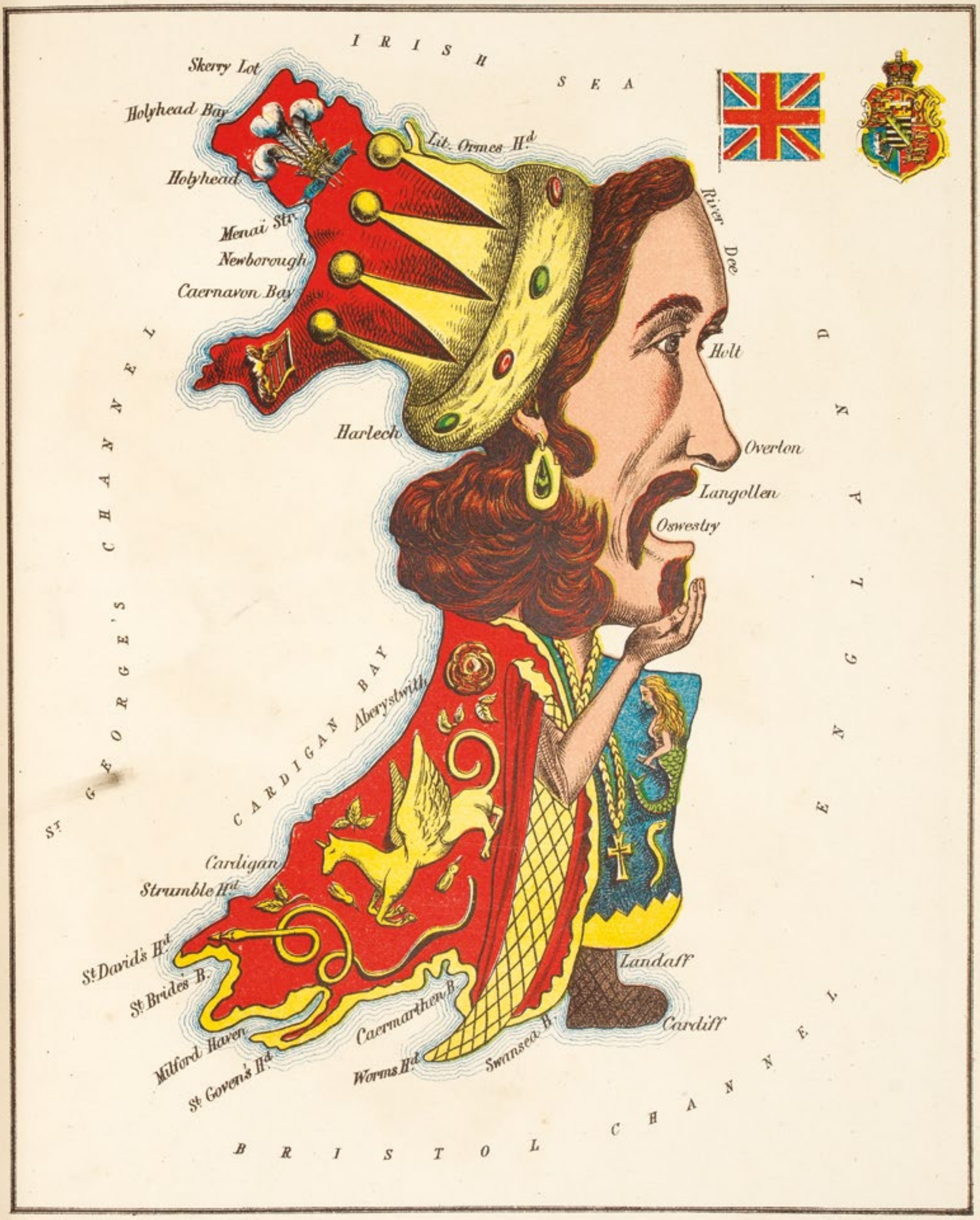
SCOTLAND.



PENTLAND FRITH
Dunnet Hd
Duncansby Hd
Cape Wrath
Sinclair B.
Noss Hd
Dornoch Frith
MORAY FRITH
Fraserburgh
Aberdeen
Stonehaven
Montrose
Frith of Tay
FRITH OF FORTH
N Berwick
Dunbar
St Abbs Hd
Berwick on Tweed
Cheviot Hills
ENGLAND
SOLWAY FRITH
Southerness
Wigton Bay
Luce Bay
IRELAND
Ayr
Irvine
Kilbrannan Sd
Frith of Clyde
Mull of C
ISLA
JURA
Sound of Jura
Iona
Kerrera
L. Linnhe
SKYE
LITTLE MINCH
THE MINCH
WESTERN ISLES
LEWIS
HARRIS
Ft George
R. Lossie
Vincent Brooks, Day & Son, Lith. London, W.C.

A gallant piper, struggling through the bogs,
His wind bag broken, wearing his clay clogs;
Yet, strong of heart, a fitting emblem makes
For Scotland—land of heroes and of cakes.

WALES.


IRISH SEA
Skerry Lot
Holyhead Bay
Holyhead
Menai Str.
Newborough
Caernavon Bay
Lit. Ormes Hd
River Dee
Holt
Harlech
Overton
Langollen
Oswestry
ENGLAND
ST GEORGE'S CHANNEL
CARDIGAN BAY
Aberystwith
Cardigan
Strumble Hd
St David's Hd
St Brides B.
Milford Haven
St Goven's Hd
Worms Hd
Caermarthen B.
Swansea B.
Landaff
Cardiff
BRISTOL CHANNEL

Vincent Brooks, Day & Son, Lith. London, W.C.

Geography bewitch'd—Owen Glendowr,
In Bardic grandeur, looks from shore to shore,
And sings King Arthur's long, long pedigree,
And cheese and leeks, and knights of high degree.

Keeping a watch on Women's Suffrage

14 [NATIONAL AMERICAN WOMAN SUFFRAGE ASSOCIATION]

Ladies' wristlet watch.

Publication
[U.S.A., c.1910].

Description
Chrome ladies' wristlet watch, Swiss movement, enamel face (25mm in diameter) decorated by hand, set with a pair of slender gold hands.

A beautiful, small, and yet incredibly powerful symbol of Women's Suffrage in America during the first decade of the twentieth century. The face of this "wristlet" watch (later wrist watch) is decorated with a deceptively delicate yellow rose, and the numbers of the dial replaced with letters spelling out "Vote for Women".

Three colours, "white, purple and yellow, played a prominent role in the iconography of suffrage. They appeared on banners, sashes, pamphlets, and all manner of tricolour badges. White was chosen to represent liberty, purity, and feminine grace. Purple, or violet, represented the vote as well as loyalty, constancy, and steadfastness. Yellow and gold were by far the most widespread colors of the movement. They emerged in 1867 when Elizabeth Cady Stanton and Susan B. Anthony were in Kansas advocating for a state suffrage referendum. The pair adopted the state flower, the sunflower, as a symbol of the suffrage cause. Suffragists began wearing gold pins and yellow ribbons to advertise their cause. Yellow roses were also popular, and served as floral badges distinguishing suffragists from anti-suffragists, who wore red roses instead" (State of Oregon online).

VOTE FOR WOMEN

The Awakening … the iconic map of the campaign for women’s suffrage

15 **MAYER, Henry**

The Awakening.

Publication
[New York, Puck Publishing Co., February, 1915].

Description
Double-page colour printed pictorial map.

Dimensions
335 by 508mm (13.25 by 20 inches).

References
Persuasive Maps: PJ Mode Collection (online), #1176; Schulten, ‘Make the map all white: the meaning of maps in the prohibition and suffrage campaigns’, University of Colorado Law Review, volume 92.

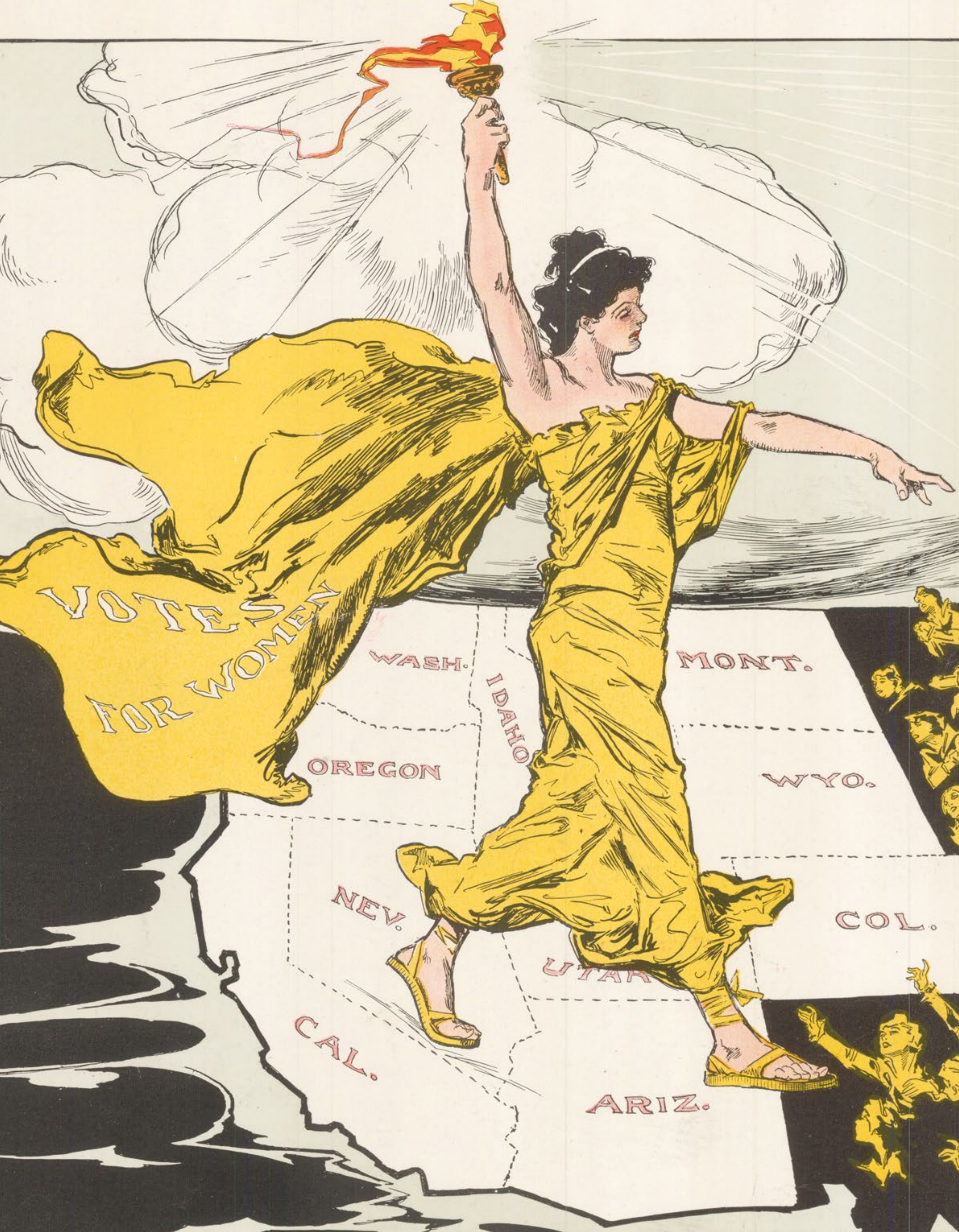
A “great rarity of persuasive mapping” and “the most striking of the suffrage maps, which played a major role in the successful fight for women’s suffrage in the U.S.” (Mode).

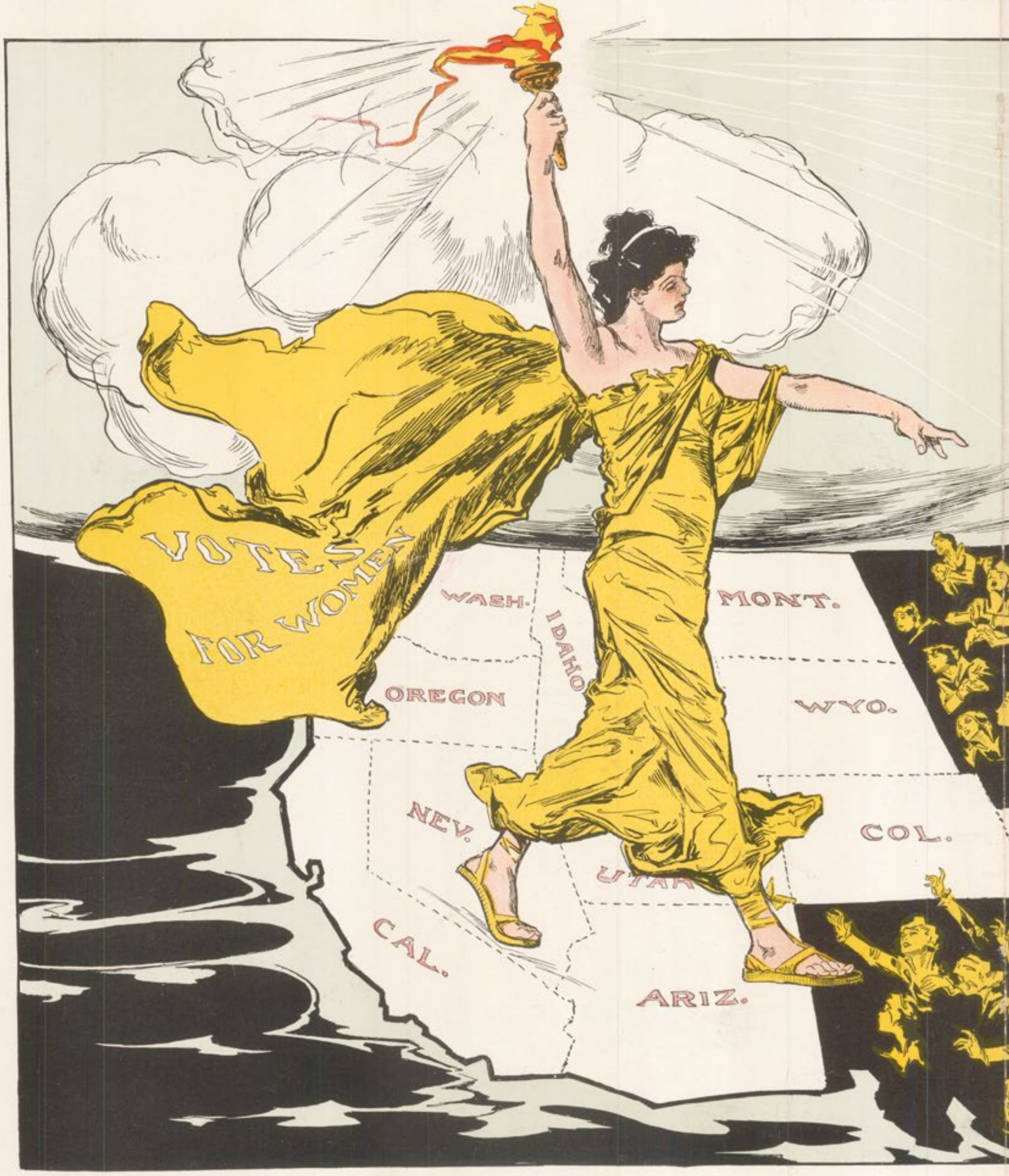
1915 was a big year for the Suffrage Movement. Although ten states west of the Mississippi had already passed amendments giving women the right to vote, all eastern states remained reluctant, as did Federal government. On January 12th, the House of Representatives had voted for the first time on a Federal amendment, but the motion was defeated.

The frontline of the fight for women’s suffrage then moved to New York State. ‘Puck’ magazine went all-in on the first New York referendum, scheduled for November, 1915, and in February produced a special “Woman Suffrage” issue illustrated with Henry Mayer’s striking centrefold, ‘The Awakening’, dramatically depicting the west-to-east progress of women’s suffrage across the nation, whipped along by Lady Liberty. In October, over 25,000 women marched up Fifth Avenue in New York City to advocate for women’s suffrage, the largest parade in the City for the time. But to no avail, as the amendment failed to pass.

The illustrator was Henry “Hy” Mayer (1868-1954), a German-born artist who was chief cartoonist for ‘Puck’ at the time. Below the map is a poem by Alice Duer Miller (1874-1952), a novelist, playwright, screenwriter, member of the Algonquin Hotel Round Table and “popular poet of tremendous range and skill” (Chapman). Miller was an active and tireless feminist who produced a substantial volume of “defiant, witty suffrage verse” (Chapman).

Rarity: ‘Puck’ was, and is, an icon of American publishing, but by 1915 it was on its last legs, and circulation had dwindled to perhaps 10,000 copies, the vast majority of which would have been read and promptly disposed. Hence the great rarity of this issue in general and ‘The Awakening’ in particular.


VOTES FOR WOMEN
WASH.
IDAHO
MONT.
OREGON
WYO.
NEV.
UTAH
COL.
CAL.
ARIZ.

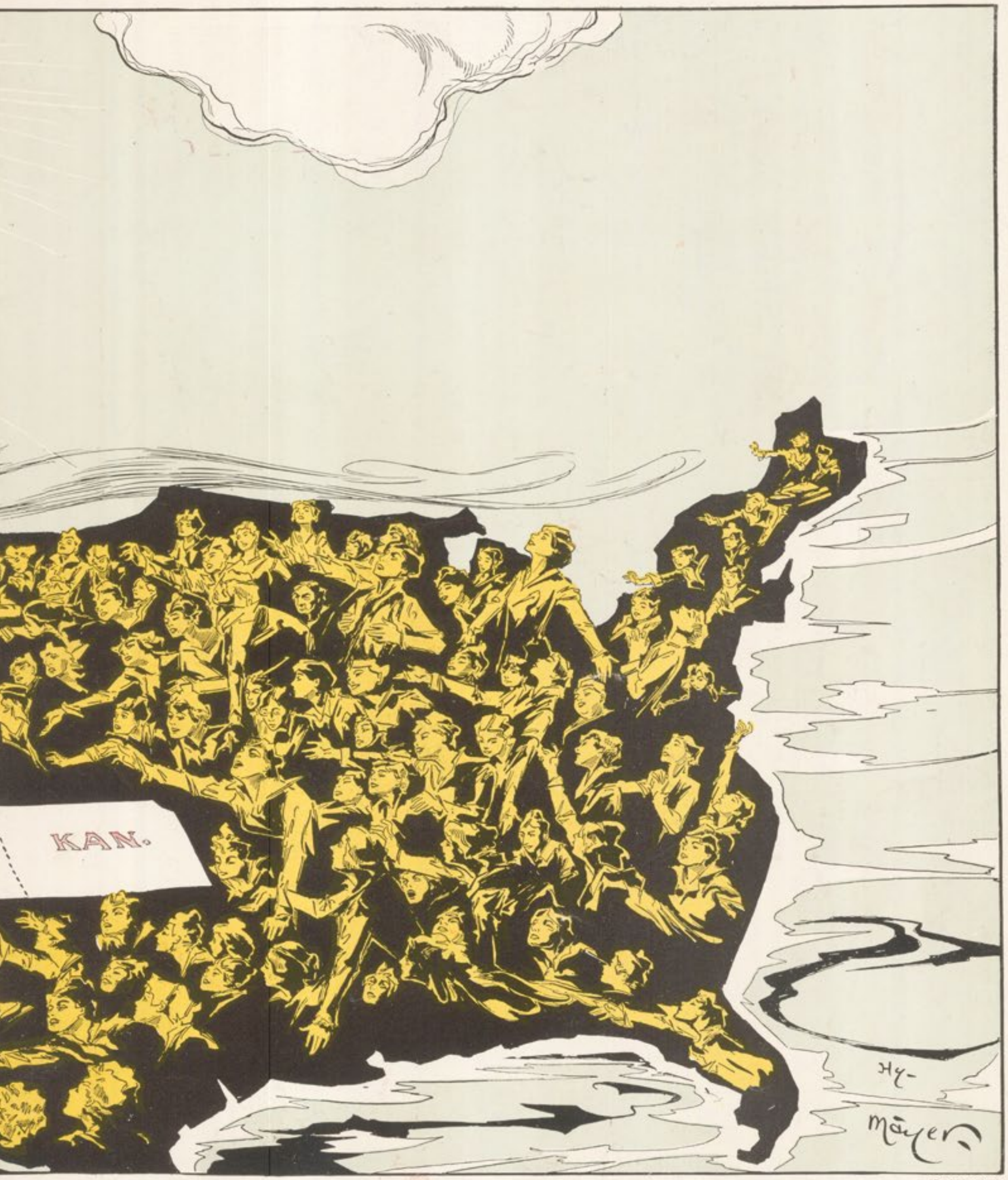

VOTES FOR WOMEN
WASH.
IDAHO
MONT.
OREGON
WYO.
NEV.
UTAH
COL.
CAL.
ARIZ.

Look forward, women, always; utterly cast away
The memory of hate and struggle and bitterness;
Bonds may endure for a night, but freedom comes with the day,
And the free must remember nothing less.

Forget the strife; remember those who strove—
The first defeated women, gallant and few,
Who gave us hope, as a mother gives us love,
Forget them not, and this remember, too:

How at the later call to come fort
Women untaught, uncounsell
Rank upon rank came forth in un
Each one answering the call

KENING



By HY MAYER

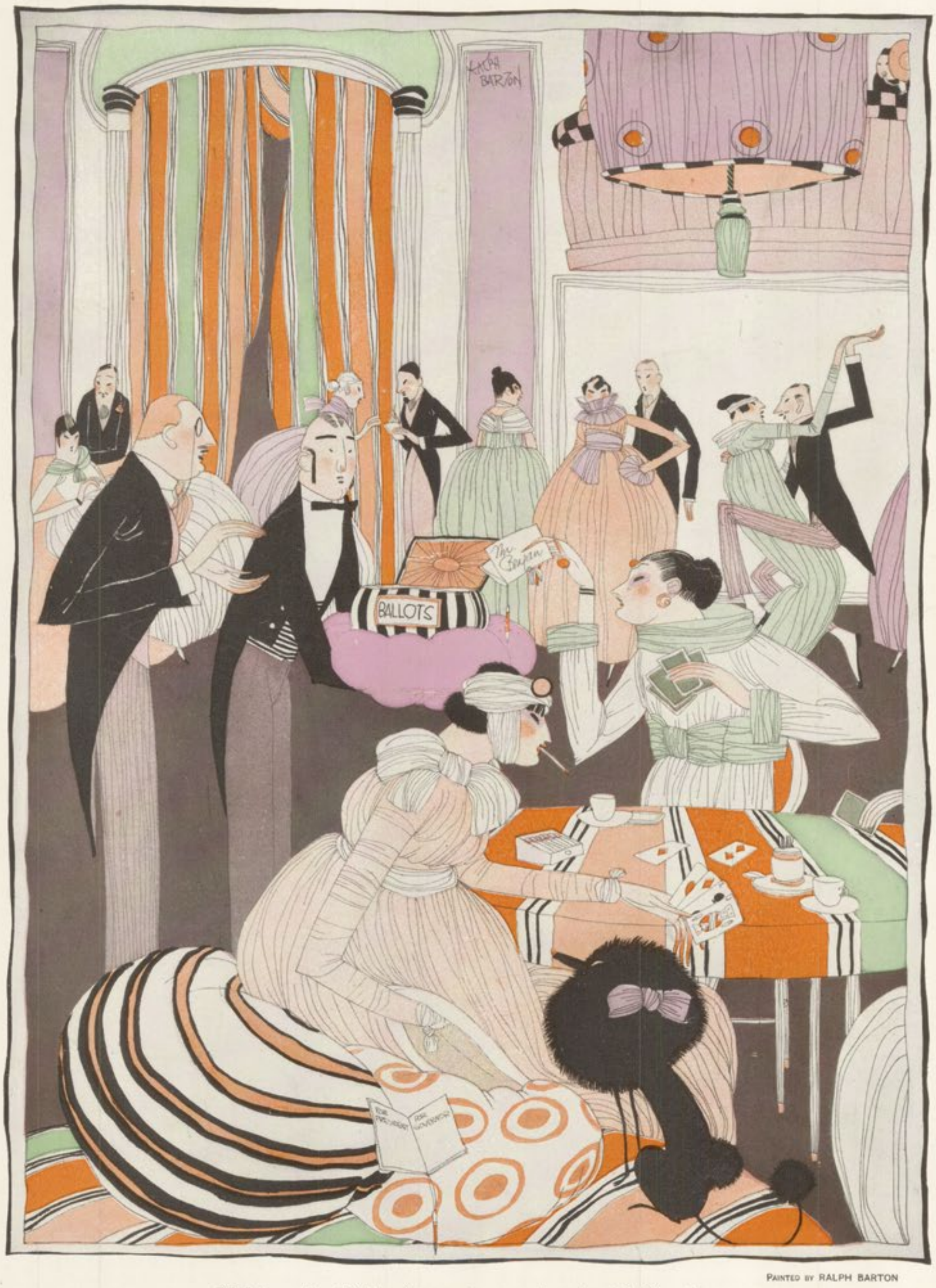
h and unite,
ed, alone and apart,
guessed might,
of her own wise heart.

They came from toil and want, from leisure and ease,
Those who knew only life, and learned women of fame,
Girls and the mothers of girls, and the mothers of these,
No one knew whence or how, but they came, they came.

The faces of some were stern, and some were gay,
And some were pale with the terror of unreal dangers;
But their hearts knew this: that hereafter come what may,
Women to women would never again be strangers.

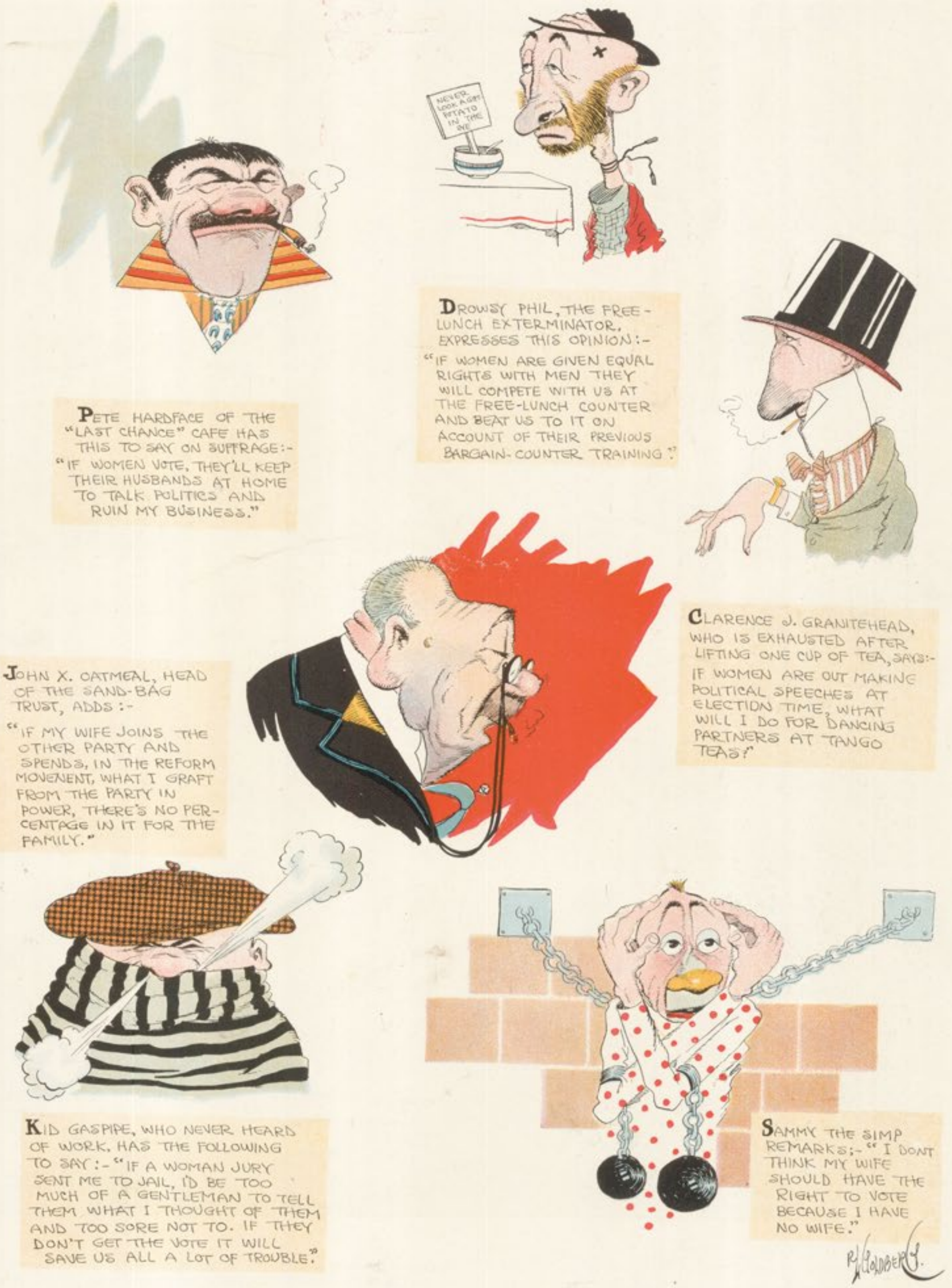
Alice Duer Miller.

24025


RALPH BARTON
BALLOTS
The Coupon
FOR PRESIDENT
FOR GOVERNOR

PAINTED BY RALPH BARTON

Making the Polls Attractive to the Anti-Suffragists


NEVER LOOK A GIFT P'TATO IN THE EYE
PETE HARDFACE OF THE "LAST CHANCE" CAFE HAS THIS TO SAY ON SUFFRAGE:- "IF WOMEN VOTE, THEY'LL KEEP THEIR HUSBANDS AT HOME TO TALK POLITICS AND RUIN MY BUSINESS."
DROWSY PHIL, THE FREE-LUNCH EXTERMINATOR, EXPRESSES THIS OPINION:- "IF WOMEN ARE GIVEN EQUAL RIGHTS WITH MEN THEY WILL COMPETE WITH US AT THE FREE-LUNCH COUNTER AND BEAT US TO IT ON ACCOUNT OF THEIR PREVIOUS BARGAIN-COUNTER TRAINING."
CLARENCE J. GRANITEHEAD, WHO IS EXHAUSTED AFTER LIFTING ONE CUP OF TEA, SAYS:- IF WOMEN ARE OUT MAKING POLITICAL SPEECHES AT ELECTION TIME, WHAT WILL I DO FOR DANCING PARTNERS AT TANGO TEAS?"
JOHN X. OATMEAL, HEAD OF THE SAND-BAG TRUST, ADDS:- "IF MY WIFE JOINS THE OTHER PARTY AND SPENDS, IN THE REFORM MOVEMENT, WHAT I GRAFT FROM THE PARTY IN POWER, THERE'S NO PERCENTAGE IN IT FOR THE FAMILY."
KID GASPIPE, WHO NEVER HEARD OF WORK, HAS THE FOLLOWING TO SAY:- "IF A WOMAN JURY SENT ME TO JAIL, I'D BE TOO MUCH OF A GENTLEMAN TO TELL THEM WHAT I THOUGHT OF THEM AND TOO SORE NOT TO. IF THEY DON'T GET THE VOTE IT WILL SAVE US ALL A LOT OF TROUBLE."
SAMMY THE SIMP REMARKS:- "I DONT THINK MY WIFE SHOULD HAVE THE RIGHT TO VOTE BECAUSE I HAVE NO WIFE."
R. L. GOLDBERG.

DRAWN BY R. L. GOLDBERG
EXPRESSLY FOR PUCK

Prominent Anti-Suffragists Give Notable Interviews

“Our country has been a busy, lively place”

16 **WHITE, Ruth Taylor; and Frank J. TAYLOR**

Our U.S.A. A Gay Geography.

Publication
Boston, Little, Brown and Company, 1935.

Description
Oblong quarto (240 by 325mm). Half-title; Colour printed pictorial frontispiece, 53 further maps with text on versos; original publisher’s red and blue pictorial cloth.

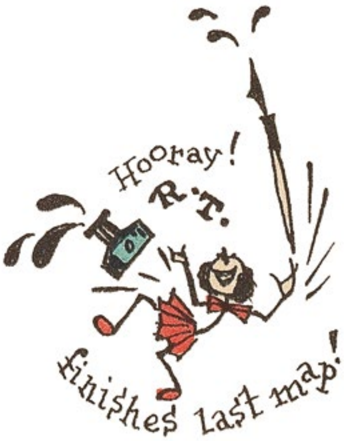
“In this Gay Geography we try to see our United States not only as Nature, in a generous mood, made the land, but also as many men and women, with varied ideas of a Promised Land, discovered it and used it. Our country has been a busy, lively place ever since it took its stand among the nations, a century and a half ago. During that time it has grown by leaps and bounds, faster than any other nation” (text for US map).

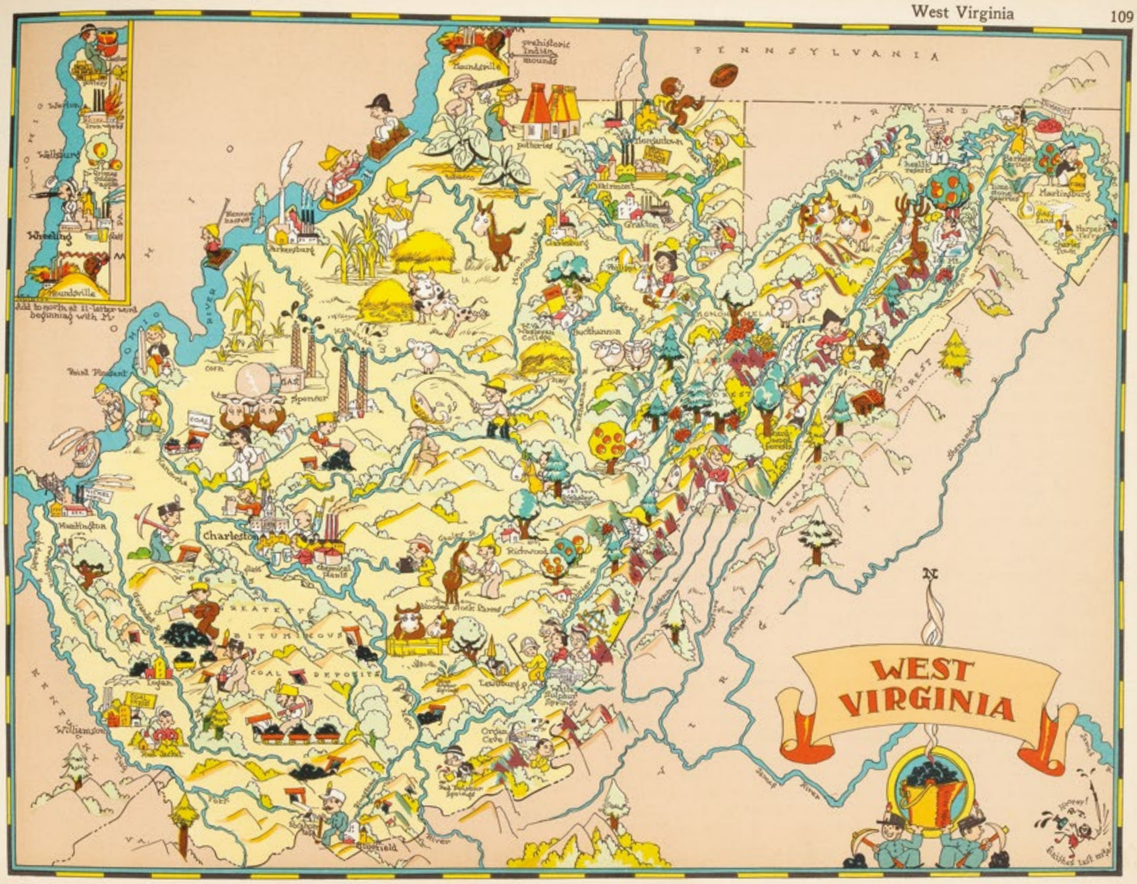
White and Taylor’s light-hearted atlas includes a pictorial frontispiece map of the United States, 53 further maps with text on versos, and endpapers decorated with double-hemisphere maps of the world. There is a map for each of the then (1935) 48 states plus the Territories of Alaska, Hawaii, American Samoa and the Commonwealth of the Philippines, and a map of the Caribbean showing Puerto Rico, the Virgin Islands and the Panama Canal Zone as well as the rest of the Antilles. “Numerous small drawings on the map of each state depict sights, people, activities, crops, animals, relief, populated places, etc. A product of the 1930s, it depicts stereotypical images of people” (David Rumsey).

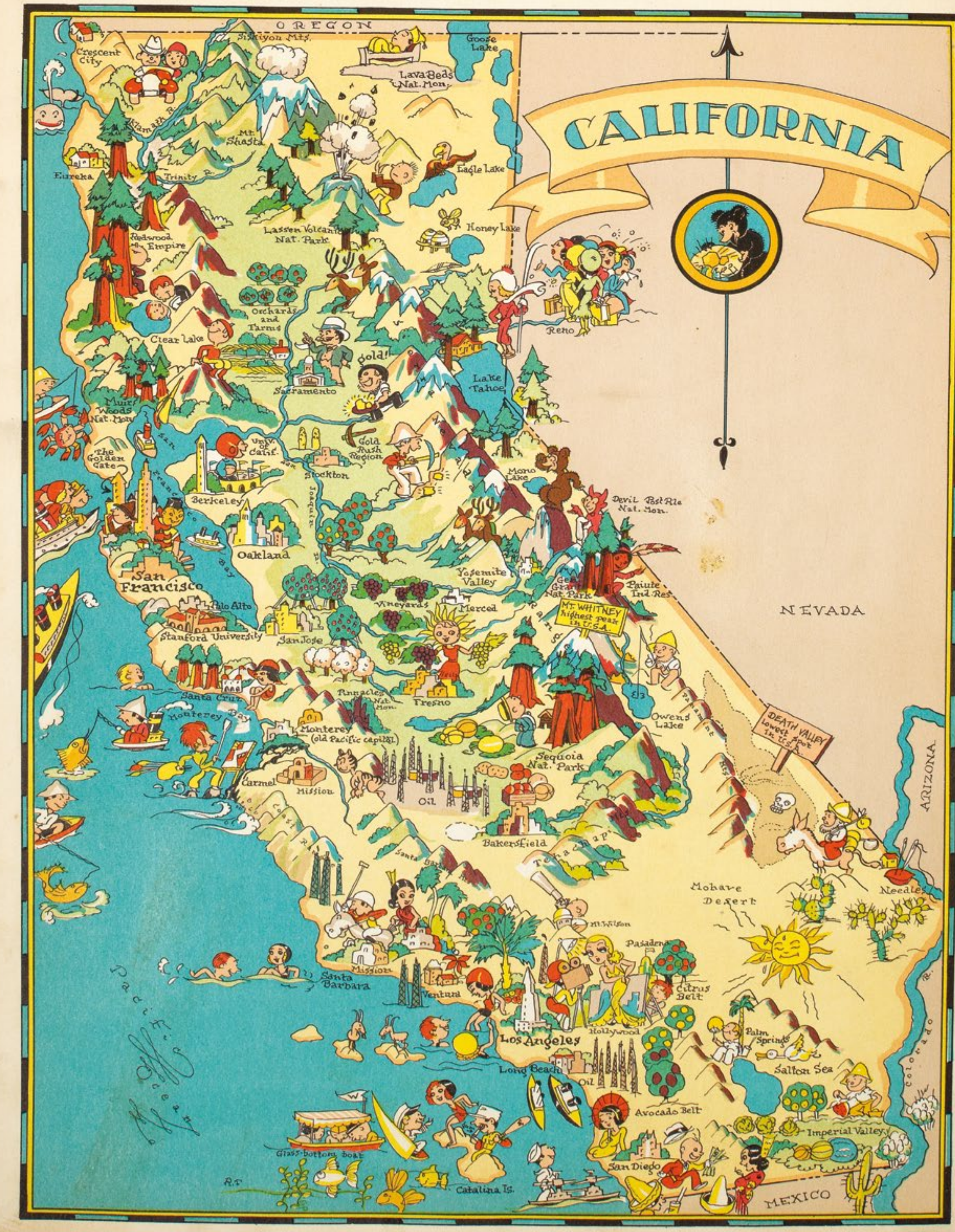
Ruth Taylor White’s (born 1899) pictorial maps, often known as cartographs, combine graphic style, colour and comical observations, and on publication the New York Times reviewed ‘Our U.S.A.’: “Any one who remembers his childhood efforts to visualize Kentucky as something more than the green spot on the map, or New York as the pink State, will appreciate this volume. Brilliantly coloured pictorial maps of the same order which have been amusing adults for the past decade show the United States and their Territories as active, picturesque entities” (November 17th, 1935).

The accompanying text is provided by Ruth’s brother Frank J. Taylor (1894-1972), a well-known journalist. One of Ruth’s earliest commissions was for Frank’s alma mater, Stanford University: the front cover of ‘The Stanford Illustrated Review’, November 1927.

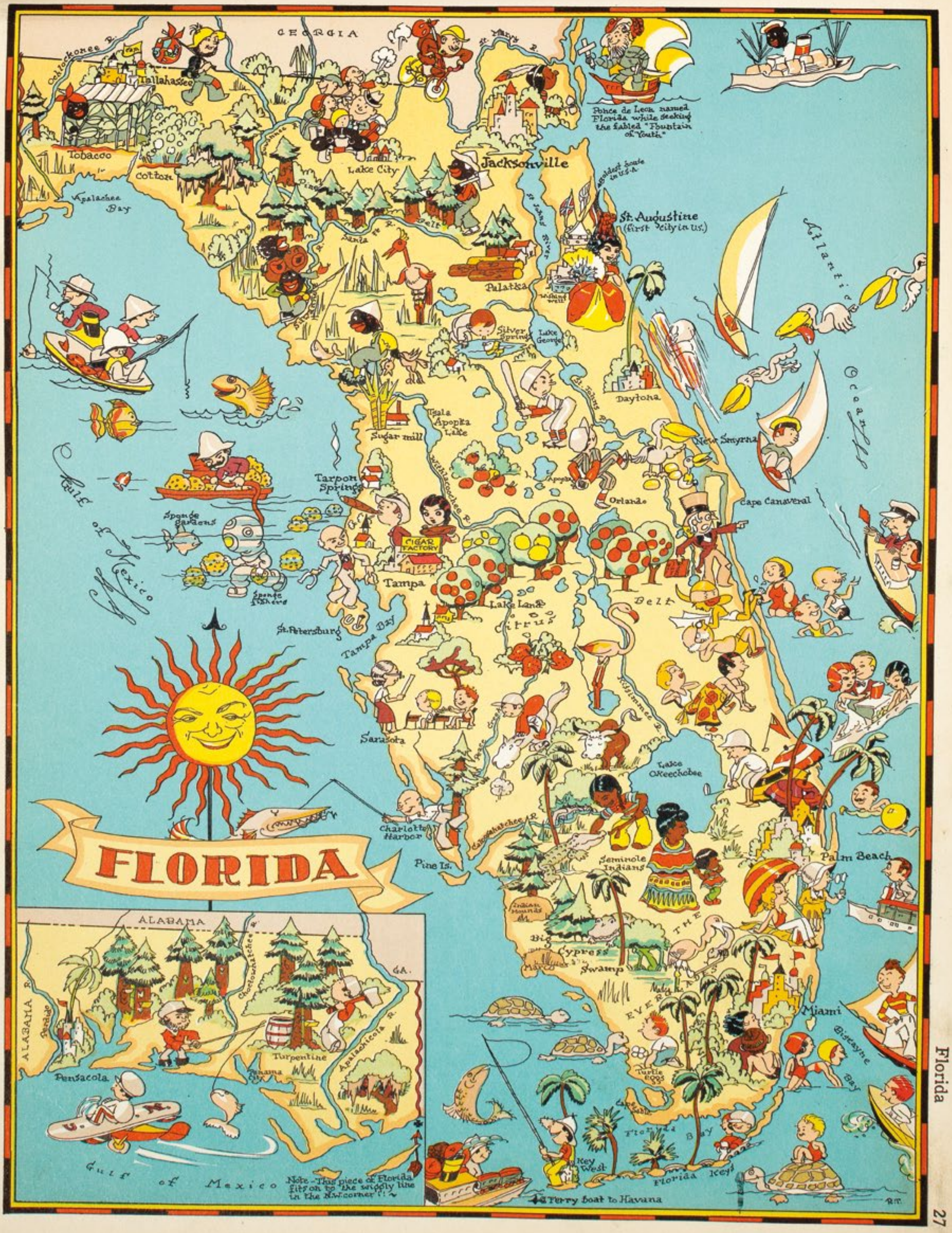
OUR U.S.A.
A Gay Geography

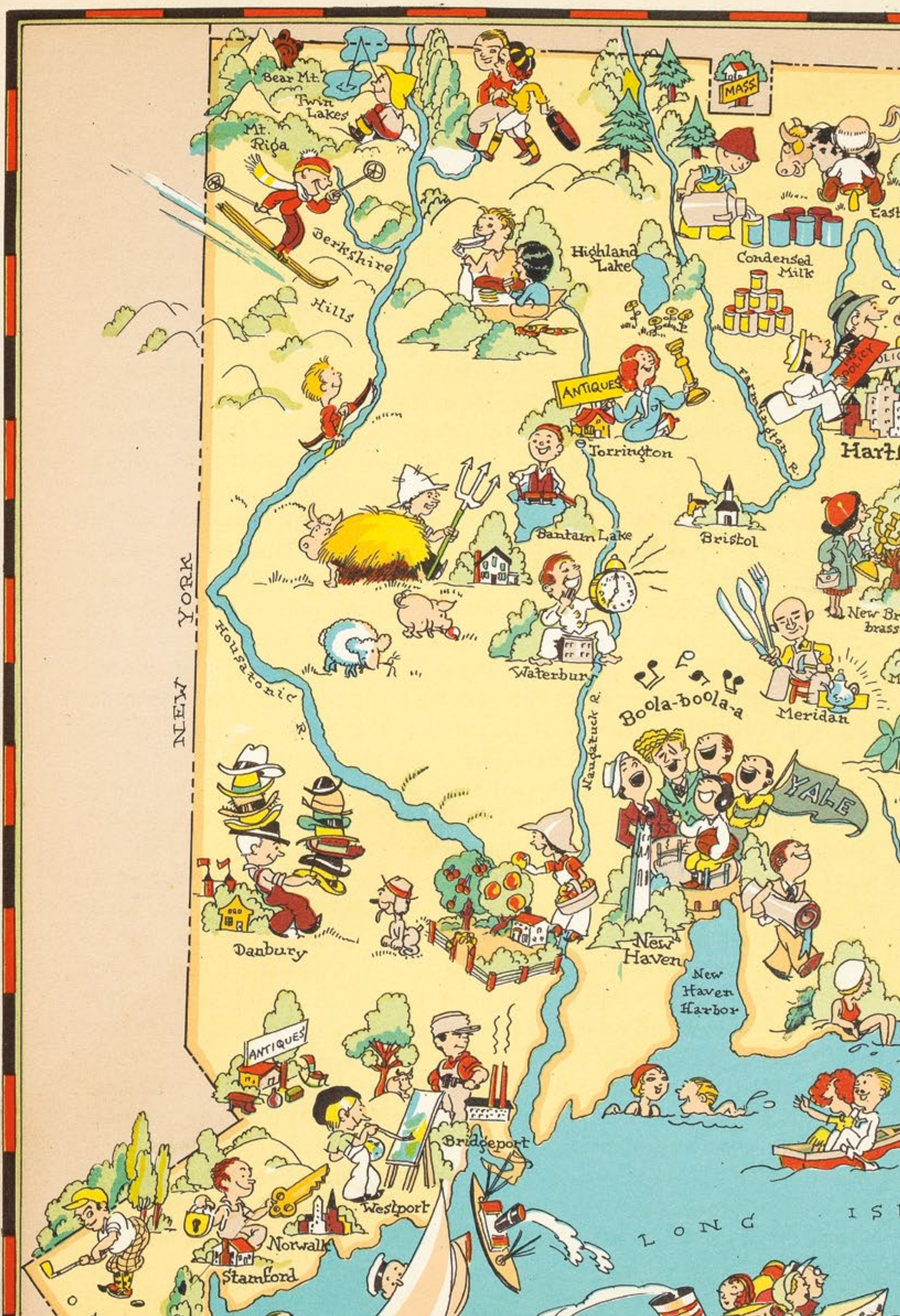

Hooray!
R.T.
finishes last map!

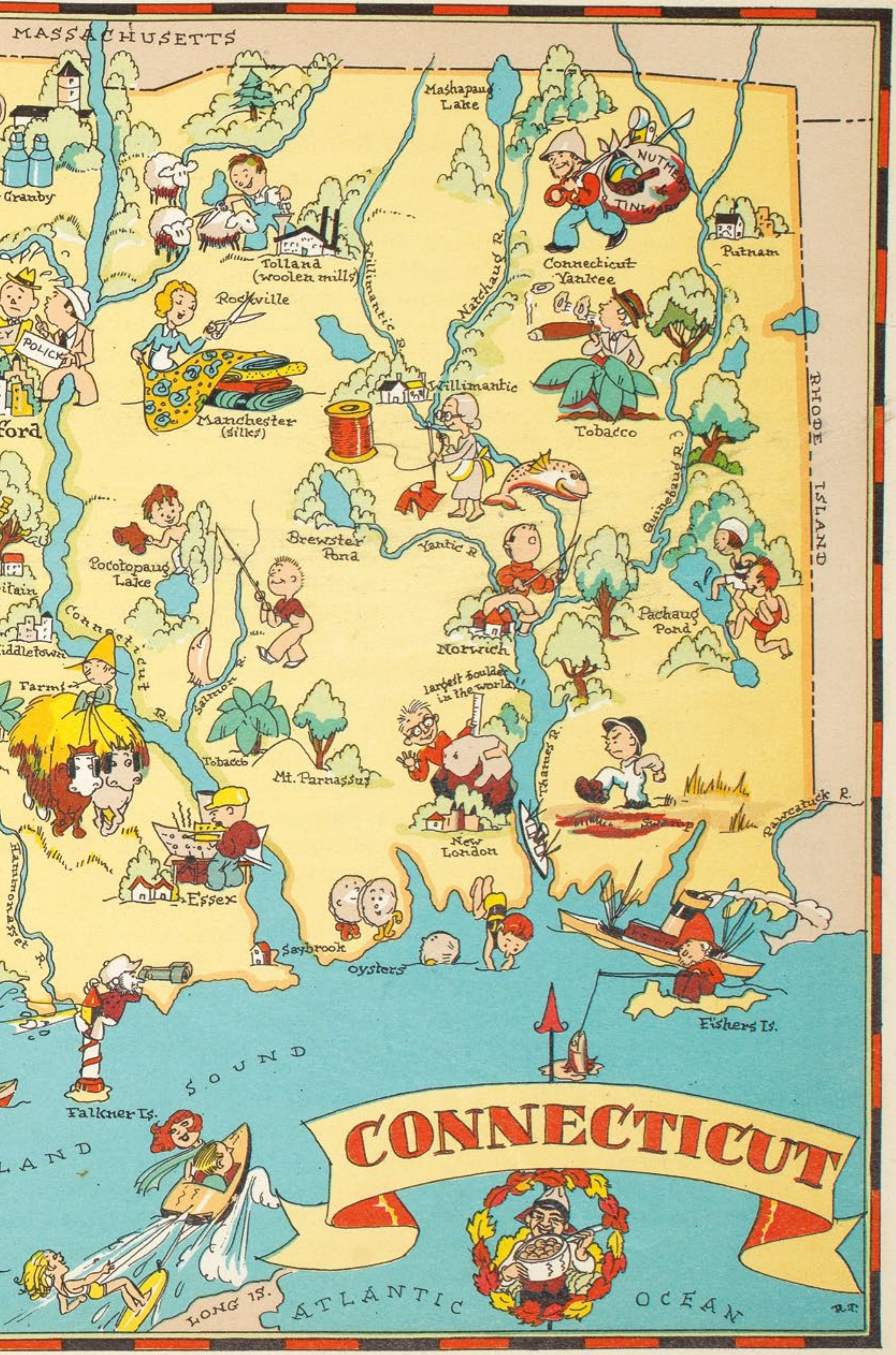

WEST VIRGINIA
N
PENNSYLVANIA
MARYLAND
OHIO RIVER
OHIO
KENTUCKY
VA.
VIRGINIA
PA.
Weirton
pottery
iron works
Wellsburg
Grimes Golden apple
Wheeling
Moundsville
Add to north at 11-letter word beginning with M
prehistoric Indian mounds
potteries
tobacco
Morgantown
Fairmont
Grafton
Clarksburg
Philippi
W. Va. Wesleyan College
Buckhannon
hay
Parkersburg
corn
GAS
Spencer
COAL
Point Pleasant
Huntington
Charleston
chemical plants
GREAT BITUMINOUS COAL DEPOSITS
Logan
Williamson
Richwood
Stock Farms
Lewisburg
White Sulphur Springs
Organ Cave
Bluefield
New River
MONONGAHELA
FOREST
spruce forests
health resorts
Berkeley Springs
Martinsburg
lime stone quarries
Harpers Ferry
Charles Town
SHENANDOAH NAT. FOREST
Shenandoah R.
James River
Hooray!
finished last map!

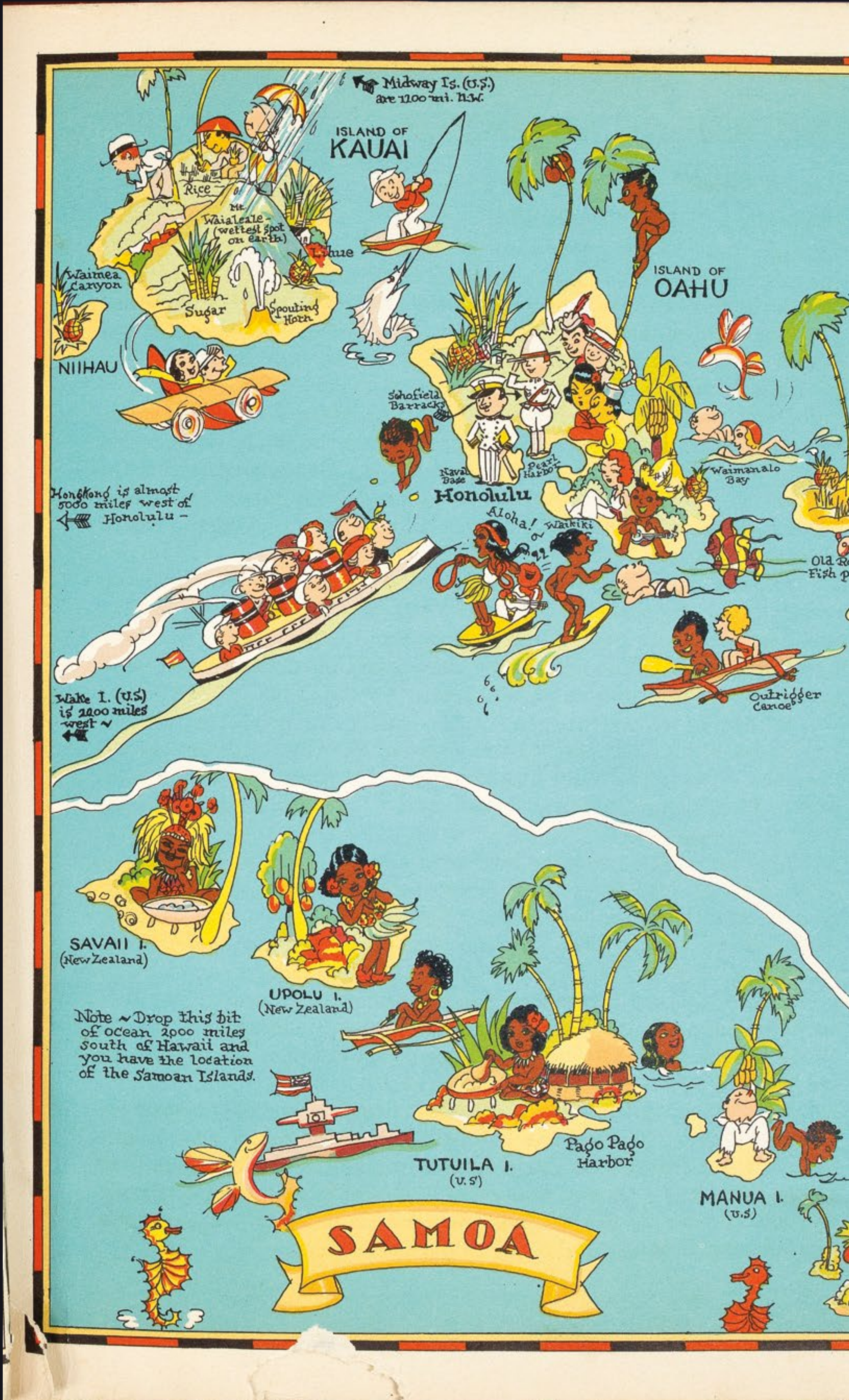


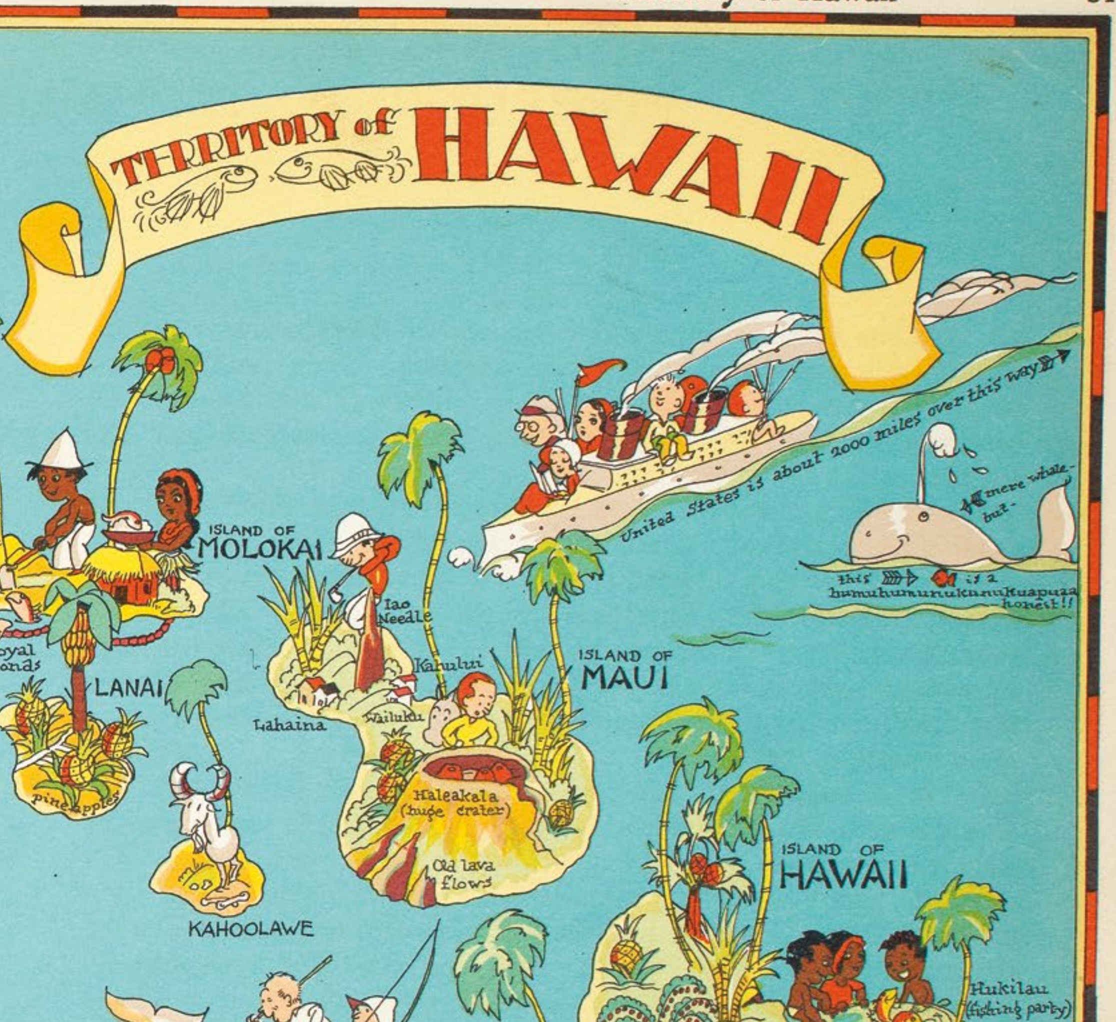
CALIFORNIA
OREGON
Siskiyou Mts.
Goose Lake
Lava Beds Nat. Mon.
Crescent City
Klamath R.
Mt. Shasta
Eureka
Trinity R.
Eagle Lake
Lassen Volcanic Nat. Park
Honey Lake
Redwood Empire
Orchards and Farms
Reno
Clear Lake
Gold!
Sacramento
Lake Tahoe
Muir Woods Nat. Mon.
Univ. of Calif.
Gold Rush Region
The Golden Gate
Stockton
Mono Lake
Devil Post Pile Nat. Mon.
Berkeley
San Joaquin R.
Oakland
San Francisco Bay
San Francisco
Yosemite Valley
Gen. Grant Nat. Park
Paiute Ind. Res.
Palo Alto
Vineyards
Merced
MT. WHITNEY highest peak in U.S.A.
NEVADA
Stanford University
San Jose
Santa Cruz
Monterey Bay
Pinnacles Nat. Mon.
Fresno
Owens Lake
DEATH VALLEY lowest spot in U.S.A.
Monterey (old Pacific capital)
Sequoia Nat. Park
ARIZONA
Carmel
Mission
Oil
Coast R.
Bakersfield
Tehachapi
Mohave Desert
Needles
Mt. Wilson
Pasadena
Santa Barbara
Mission
Ventura
Citrus Belt
Hollywood
Los Angeles
Palm Springs
Salton Sea
Pacific Ocean
Long Beach
Oil
Avocado Belt
Imperial Valley
Colorado R.
Glass-bottom boat
San Diego
Catalina Is.
MEXICO
R.T.


GEORGIA
Ochlockonee R.
Tallahassee
Cap.
St. Marys R.
Tobacco
Cotton
Apalachee Bay
Suwannee R.
Lake City
Pine
Belt
Santa Fe R.
Jacksonville
Ponce de Leon named Florida while seeking the fabled "Fountain of Youth"
oldest house in U.S.A.
St. Johns River
St. Augustine (first city in U.S.)
Palatka
wishing well
Silver Springs
Lake George
Atlantic Ocean
Daytona
St. Johns R.
Tsala Apopka Lake
Sugar mill
New Smyrna
Apopka
Orlando
Cape Canaveral
Withlacoochee R.
Tarpon Springs
Sponge Gardens
Sponge fishers
Gulf of Mexico
CIGAR FACTORY
Tampa
Lake Land
Citrus
Belt
St. Petersburg
Tampa Bay
Kissimmee R.
Sarasota
Peace Creek
Lake Okeechobee
Charlotte Harbor
Caloosahatchee R.
Pine Is.
FLORIDA
Seminole Indians
Palm Beach
Indian Mounds
THE EVERGLADES
Big Cypress Swamp
Marco
Miami
Biscayne Bay
Turtle eggs
Cape Sable
Florida Bay
Key West
Florida Keys
Ferry boat to Havana
R.T.
ALABAMA
Choctawhatchee R.
GA.
ALABAMA R.
Perdido
Pensacola
Turpentine
Panama City
Apalachicola R.
U.S.N.
Gulf of Mexico
Note - This piece of Florida fits on to the wiggly line in the N.W. corner!!


Bear Mt.
Twin Lakes
Mt. Riga
Berkshire Hills
Highland Lake
MASS
Condensed Milk
East
ANTIQUES
Torrington
Farmington R.
POLICY
Hart
Bantam Lake
Bristol
New Br
brass
NEW YORK
Housatonic R.
Waterbury
Naugatuck R.
Boola-boola-a
Meridan
YALE
Danbury
New Haven
New Haven Harbor
ANTIQUES
Bridgeport
Westport
Norwalk
Stamford
Greenwich
LONG
I S


MASSACHUSETTS
Granby
Tolland
(woolen mills)
Rockville
CY
POLICY
Manchester
(silks)
ford
Mashapaug Lake
NUTMEGS
TINWARE
Connecticut Yankee
Putnam
Willimantic R.
Natchaug R.
Willimantic
Tobacco
RHODE ISLAND
Quinebaug R.
Brewster Pond
Yantic R.
Pocotopaug Lake
itain
Connecticut R.
iddletown
Farms
Salmon R.
Pachaug Pond
Norwich
largest boulder in the world
Tobacco
Mt. Parnassus
Thames R.
Swamp
Pawcatuck R.
New London
Essex
Hammonasset R.
Saybrook
oysters
Fishers Is.
SOUND
Falkner Is.
LAND
CONNECTICUT
LONG IS.
ATLANTIC
OCEAN
R.T.


Midway Is. (U.S.) are 1200 mi. N.W.
ISLAND OF KAUAI
Rice
Mt. Waialeale - (wettest spot on earth)
Lihue
Waimea Canyon
Sugar
Spouting Horn
NIIHAU
ISLAND OF OAHU
Schofield Barracks
Naval Base
Pearl Harbor
Honolulu
Waimanalo Bay
Aloha!
Waikiki
Old Ro
Fish P
Hongkong is almost 5000 miles west of Honolulu -
Outrigger Canoe
Wake I. (U.S.) is 2200 miles west ~
SAVAII I. (New Zealand)
UPOLU I. (New Zealand)
Note ~ Drop this bit of ocean 2000 miles south of Hawaii and you have the location of the Samoan Islands.
TUTUILA I. (U.S)
Pago Pago Harbor
MANUA I. (U.S)
SAMOA


TERRITORY of HAWAII
United States is about 2000 miles over this way
mere whale-
but-
this is a
humuhumunukunukuapuaa
honest!!
ISLAND OF
MOLOKAI
Iao
Needle
oyal
onds
LANAI
pineapples
Kahului
Lahaina
Wailuku
ISLAND OF
MAUI
Haleakala
(huge crater)
Old lava
flows
KAHOOLAWE
ISLAND OF
HAWAII
Hukilau
(fishing party)
Sugar
Coffee
Tobacco
Mauna Kea
Cattle
Sugar
Cane
Big
Game
fish
Mt Hualalai
KONA
DISTRICT
Hilo
Kealakekua Bay
where Capt. Cook
was hailed as a god
when he landed
in 1779
Tropical
snow
Coffee
Fern
Jungles
Mauna
Loa
Kilauea
Active Volcano
HAWAII
NAT.
PARK
PUNA
DISTRICT
Recent
Lava
Flows
Poi pounder
ROSE I.
(U.S)
R.T.

An Eton collAge

17 **WAGSTAFF, Hester M.**

A Map of Eton College and its Environs.

Publication
[Eton], Published at the Petersfield Workshops, Printed by Emery Walker Ltd., [1937].

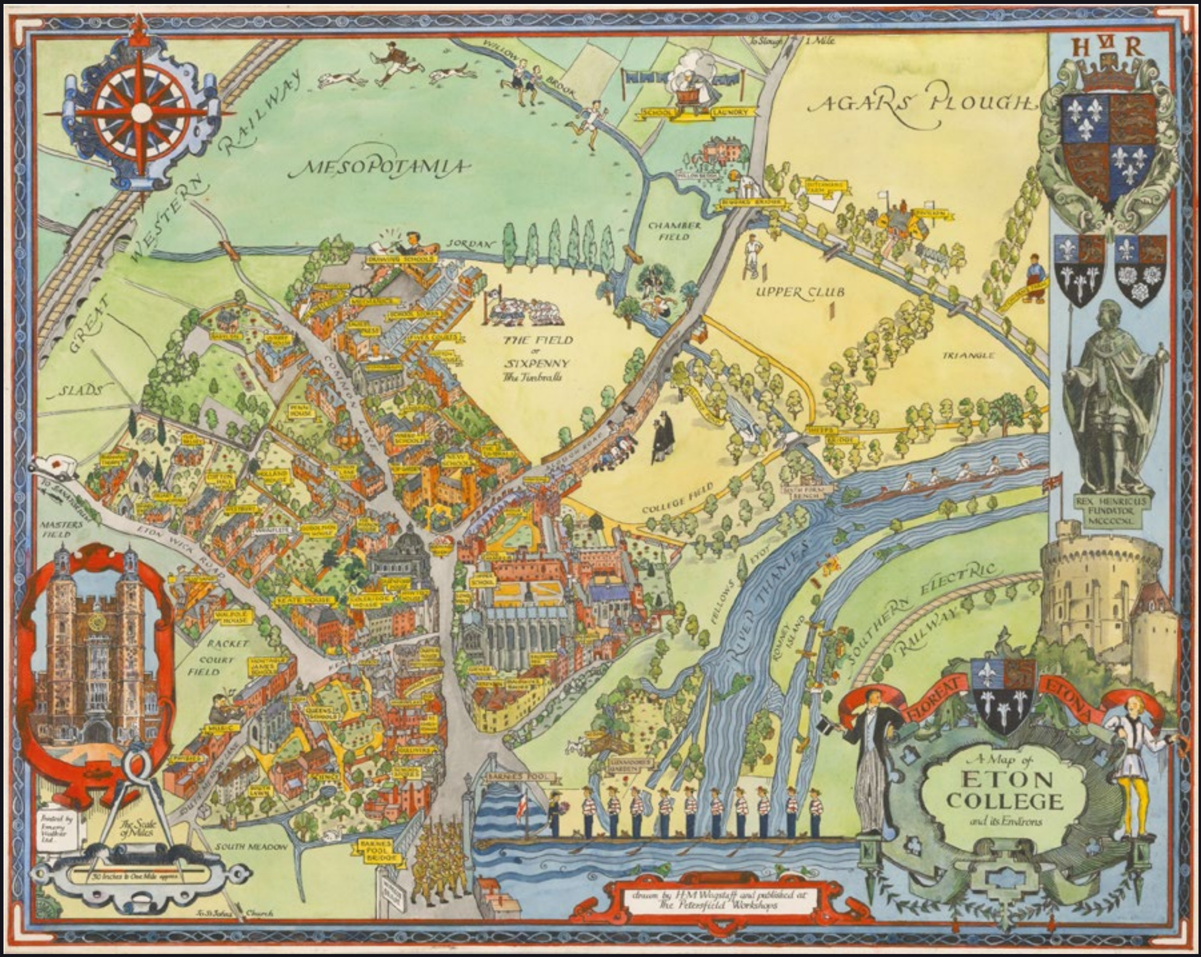
Description
Lithographed pictorial map with contemporary hand-colour in full; laid down on board.

Dimensions
430 by 530mm (17 by 20.75 inches).

This whimsical map of Eton College, lustrating its location, traditions, activities and attractions, has been drawn by the successful and well known illustrator Hester M. Wagstaff who, on this occasion has been heavily influenced by Macdonald Gill.

The map focuses on all the activities available to Eton's pupils, from sports to the drawing schools. The School Houses are detailed as are some of the more unique activities associated with Eton, such as the Wall Game.

Hester M. Wagstaff was Born in Leighton Buzzard in 1892, she ran the Petersfield Workshops in Petersfield, Hampshire (1918-1948) with Flora Twort and Maria Brahms. This map was drawn in 1937, and in 1948 she gave permission for her map to be used as an end plate in B. R. J. "Bud" Hill's book about Eton College, entitled 'Eton Medley'.


A Map of
ETON
COLLEGE
and its Environs
FLOREAT ETONA
HVIR
REX HENRICUS FUNDATOR MCCCCXL
drawn by H.M Wagstaff and published at
The Petersfield Workshops
Printed by Emery Walker Ltd.
The Scale of Miles
30 Inches to One Mile approx
AGARS PLOUGH
MESOPOTAMIA
GREAT WESTERN RAILWAY
WILLOW BROOK
SCHOOL LAUNDRY
To Slough 1 Mile
CHAMBER FIELD
JORDAN
DRAWING SCHOOLS
UPPER CLUB
TRIANGLE
THE FIELD or SIXPENNY The Timbralls
SLADS
COMMON LANE
PENN HOUSE
NEW SCHOOLS
SLOUGH ROAD
To SANATORIUM
MASTERS FIELD
ETON WICK ROAD
KEATE HOUSE
WALPOLE HOUSE
RACKET COURT FIELD
QUEENS SCHOOLS
MUSIC
SOUTH MEADOW LANE
SOUTH MEADOW
BARNES POOL
BARNES POOL BRIDGE
To St Johns Church
COLLEGE FIELD
SHEEPS BRIDGE
SIXTH FORM BENCH
FELLOWS EYOT
RIVER THAMES
ROMNEY ISLAND
SOUTHERN ELECTRIC RAILWAY

A woman's work is never done

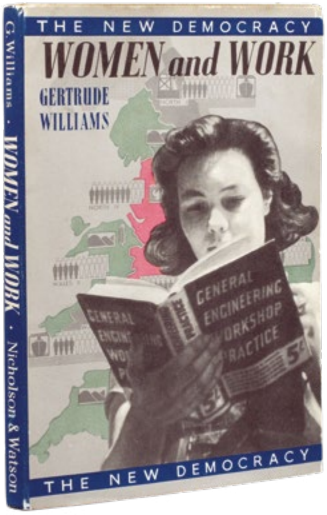
18 **WILLIAMS, Gertrude Rosenblum; and Otto NEURATH**

Women and Work.

Publication
London, Nicholson & Watson, 1945.

Description
First edition. Octavo (215 by 140mm). 13 numbered colour printed charts, illustrated throughout from photographs; original publisher's grey cloth, gilt, dust jacket.

References
Harper, 'Maps and women', BL 2017.

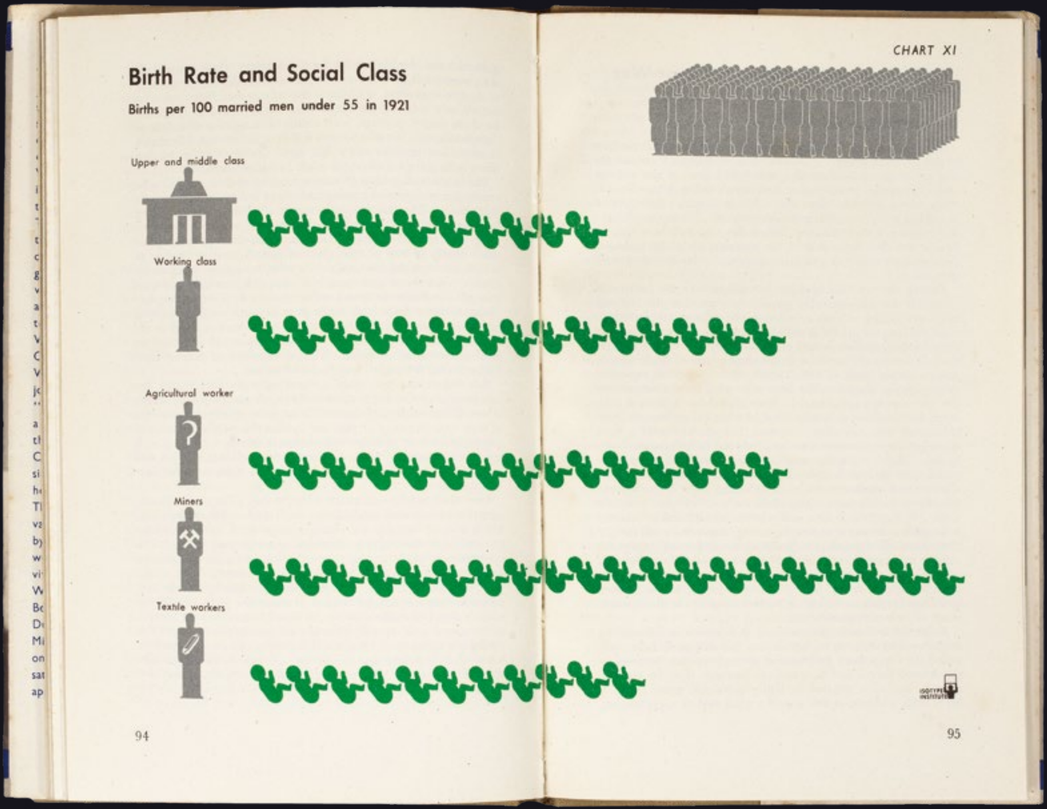

THE NEW DEMOCRACY
WOMEN and WORK
GERTRUDE WILLIAMS
G. Williams · WOMEN and WORK · Nicholson & Watson
GENERAL ENGINEERING WORKSHOP PRACTICE
THE NEW DEMOCRACY

One of 'The New Democracy Series', which attempted to "see to it that twentieth-century democracy is tuned up to twentieth-century conditions" (foreword). In a contemporary review "Mrs. Williams's" book is described as "little" three times,... but the issues were, and remain, large.

Lady Gertrude Rosenblum Williams (1897-1983) was an economist and social strategist whose research and writing impacted on the foundation and development of the Welfare State in the United Kingdom from the 1940s. Of Williams's books of the 'New Democracy' series, the 1945 publication on 'Women in Work' contains some of the most distinctive infographic maps to make statistics more intelligible. These infographics were by Otto Neurath's Isotype Institute. 'The occupation of women by regions' using 1931 census data is one of the best. Williams' social mapping sits in a tradition begun by Booth and Webb, and continued into the 21st century by, for example, Bethan Thomas and Danny Dorling" (Harper).

The statistical charts are:
'The Development of Men's Occupations - Development of Women's Occupations' between 1881 and 1931
'Age Groups and Occupation in England and Wales 1931', males versus females
'Professions of Women in 1911 - Professions of Women in 1931'
'Occupation of Women by Regions, 1931'
'Weekly Earnings of Men and Women, 1940'
'Membership of Trade Unions in 1939', males versus females
'Percentage of Women Occupied and Number of Births... 1931'
'Women at Work in Greater London, 1931 - Women at Work in South Wales, 1931'
'The Changing Home - Before the 19th Century - the 19th Century' inside versus outside the home
'The Changing Home Today - The Future' inside versus outside the home
'Birth Rare and Social Class... in 1921'
'Family Sizes in Great Britain, 1931'
'Occupations of Women about 1930'

"This war has shown that there are few jobs which women cannot undertake successfully. But how many of the new societal habits formed to meet the needs of a democracy at war do we want to carry over into the post-war world? What part can and should women play in the field of employment when this time of special emergency is over? This book is an attempt to disentangle the issues involved in this matter. It outlines the scope of the problem in general and goes on to consider the various factors that must be taken into account when we think out the answers to such questions as the following: - What types of work can women do? Ought they to get the same pay as men? Why don't they? Is the home a



Birth Rate and Social Class

Births per 100 married men under 55 in 1921

Upper and middle class

Working class

Agricultural worker

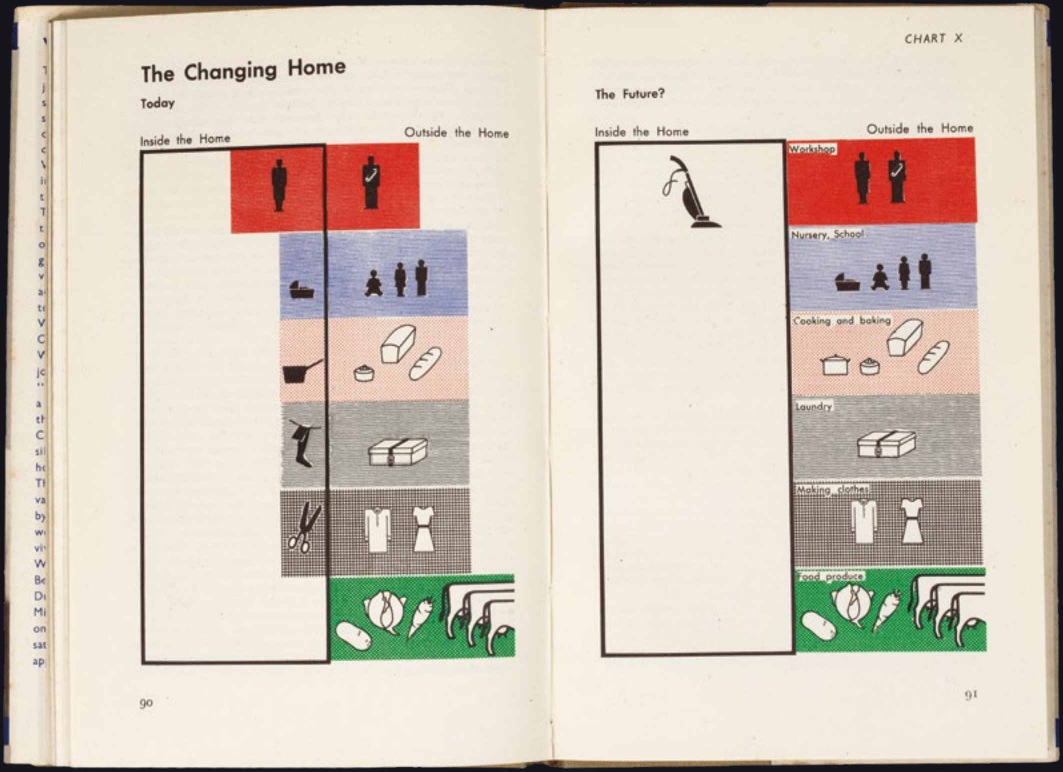
Miners

Textile workers

94

CHART XI

95



The Changing Home

Today

Inside the Home

Outside the Home

90

CHART X

The Future?

Inside the Home

Outside the Home

Workshop

Nursery, School

Cooking and baking

Laundry

Making clothes

Food produce

91

full-time job? - all the time? - sometimes? Is it “unfair” for a married women [sic] to earn a living and, if so, unfair to whom? Has the part-time worker come to stay? Can women expect to get the responsible jobs if their main interest is the home and family? The pictures show at a glance the great variety of work not actually being done by women, and the charts - which are worth close scrutiny - make clear and vivid many of the arguments. Mrs. Williams is lecturer in Economics at Bedford College (University of London). During the war she has worked at the Ministry of labour and National Service on problems connected with the mobilisation of women, and has recently been appointed a member of the Catering (Cafes) Wages Board under the Catering Wages Act, 1943. She has written several books on social economics of which ‘The State and the Standard Security’ (a study of the problem of labour mobility) are the most important, and several pamphlets on economic problems for the Army Bureau of Current Affairs” (Williams).

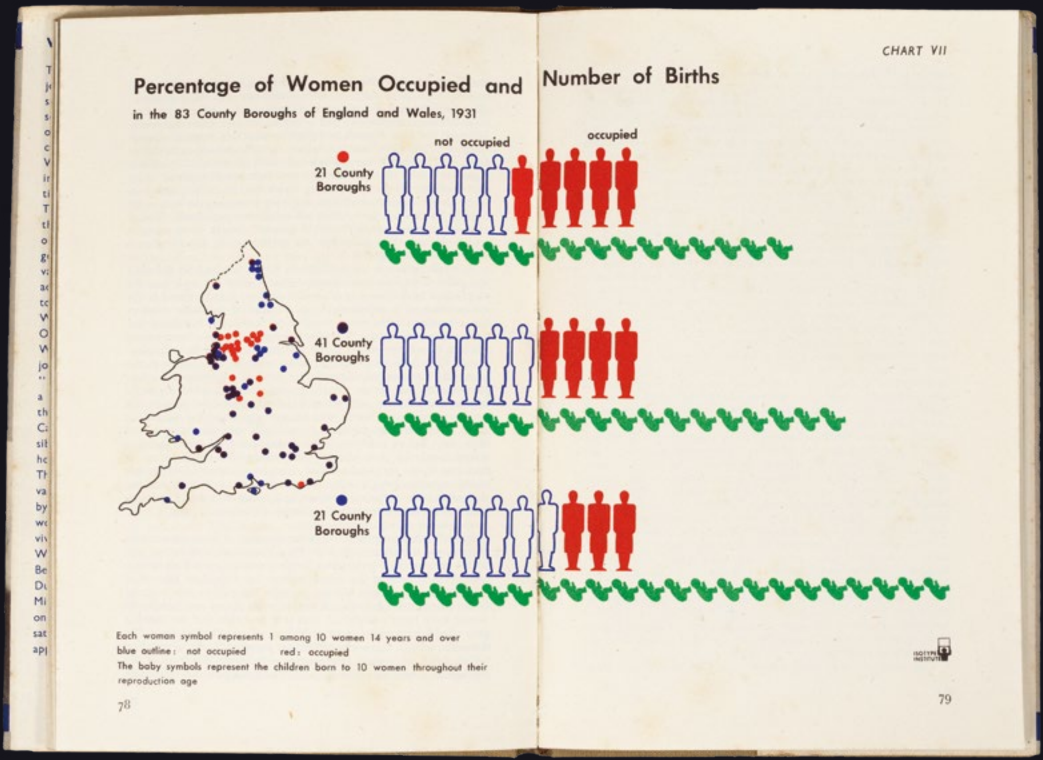


CHART VII

Percentage of Women Occupied and Number of Births

in the 83 County Boroughs of England and Wales, 1931

Each woman symbol represents 1 among 10 women 14 years and over
blue outline: not occupied red: occupied
The baby symbols represent the children born to 10 women throughout their reproduction age

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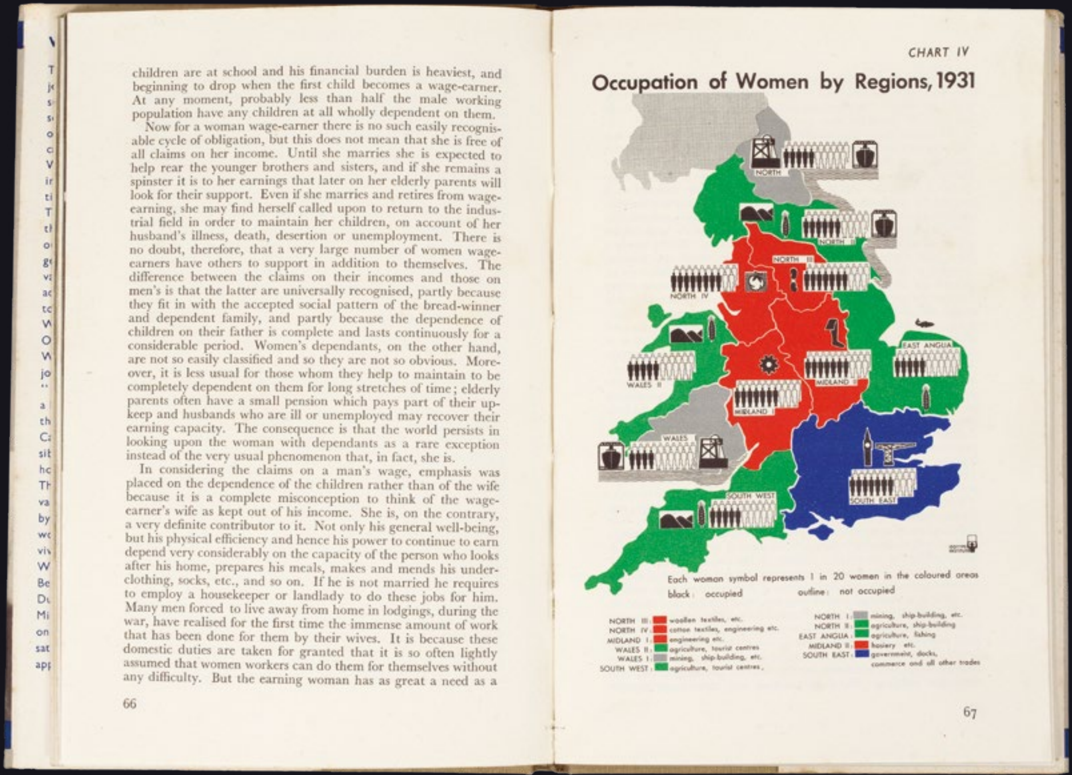


children are at school and his financial burden is heaviest, and beginning to drop when the first child becomes a wage-earner. At any moment, probably less than half the male working population have any children at all wholly dependent on them.

Now for a woman wage-earner there is no such easily recognisable cycle of obligation, but this does not mean that she is free of all claims on her income. Until she marries she is expected to help rear the younger brothers and sisters, and if she remains a spinster it is to her earnings that later on her elderly parents will look for their support. Even if she marries and retires from wage-earning, she may find herself called upon to return to the industrial field in order to maintain her children, on account of her husband's illness, death, desertion or unemployment. There is no doubt, therefore, that a very large number of women wage-earners have others to support in addition to themselves. The difference between the claims on their incomes and those on men's is that the latter are universally recognised, partly because they fit in with the accepted social pattern of the bread-winner and dependent family, and partly because the dependence of children on their father is complete and lasts continuously for a considerable period. Women's dependants, on the other hand, are not so easily classified and so they are not so obvious. Moreover, it is less usual for those whom they help to maintain to be completely dependent on them for long stretches of time; elderly parents often have a small pension which pays part of their upkeep and husbands who are ill or unemployed may recover their earning capacity. The consequence is that the world persists in looking upon the woman with dependants as a rare exception instead of the very usual phenomenon that, in fact, she is.

In considering the claims on a man's wage, emphasis was placed on the dependence of the children rather than of the wife because it is a complete misconception to think of the wage-earner's wife as kept out of his income. She is, on the contrary, a very definite contributor to it. Not only his general well-being, but his physical efficiency and hence his power to continue to earn depend very considerably on the capacity of the person who looks after his home, prepares his meals, makes and mends his underclothing, socks, etc., and so on. If he is not married he requires to employ a housekeeper or landlady to do these jobs for him. Many men forced to live away from home in lodgings, during the war, have realised for the first time the immense amount of work that has been done for them by their wives. It is because these domestic duties are taken for granted that it is so often lightly assumed that women workers can do them for themselves without any difficulty. But the earning woman has as great a need as a

CHART IV

Occupation of Women by Regions, 1931

Each woman symbol represents 1 in 20 women in the coloured areas
black: occupied outline: not occupied

NORTH III:	🟥	woollen textiles, etc.
NORTH IV:	🟥	cotton textiles, engineering etc.
MIDLAND I:	🟥	engineering etc.
WALES II:	🟩	agriculture, tourist centres
WALES I:	▨	mining, ship-building, etc.
SOUTH WEST:	🟩	agriculture, tourist centres.
NORTH I:	▨	mining, ship-building, etc.
NORTH II:	🟩	agriculture, ship-building
EAST ANGLIA:	🟩	agriculture, fishing
MIDLAND II:	🟥	hosiery etc.
SOUTH EAST:	🟦	government, docks, commerce and all other trades

Mother's Union Map

19 CHICHESTER, Francis

The Mother's Union World Map.

Publication
United Kingdom, L xxxx & Co., [1950s].

Description
Chromolithographed map.

Dimensions
680 by 1010mm (26.75 by 39.75 inches).

Inspired by the meetings her mother used to hold for local mothers at their home in Herefordshire, and her struggles after the birth of her own daughter, Mary Sumner founded the Mothers' Union in 1876. Intended as a Christian group to support mothers and to nurture the family, the Union rapidly spread across the United Kingdom and in 1897, Queen Victoria became a patron. The association then opened branches throughout the British Empire, including in New Zealand, Canada and India. Sumner led the Mothers' Union until her death in 1921 at the age of 92.

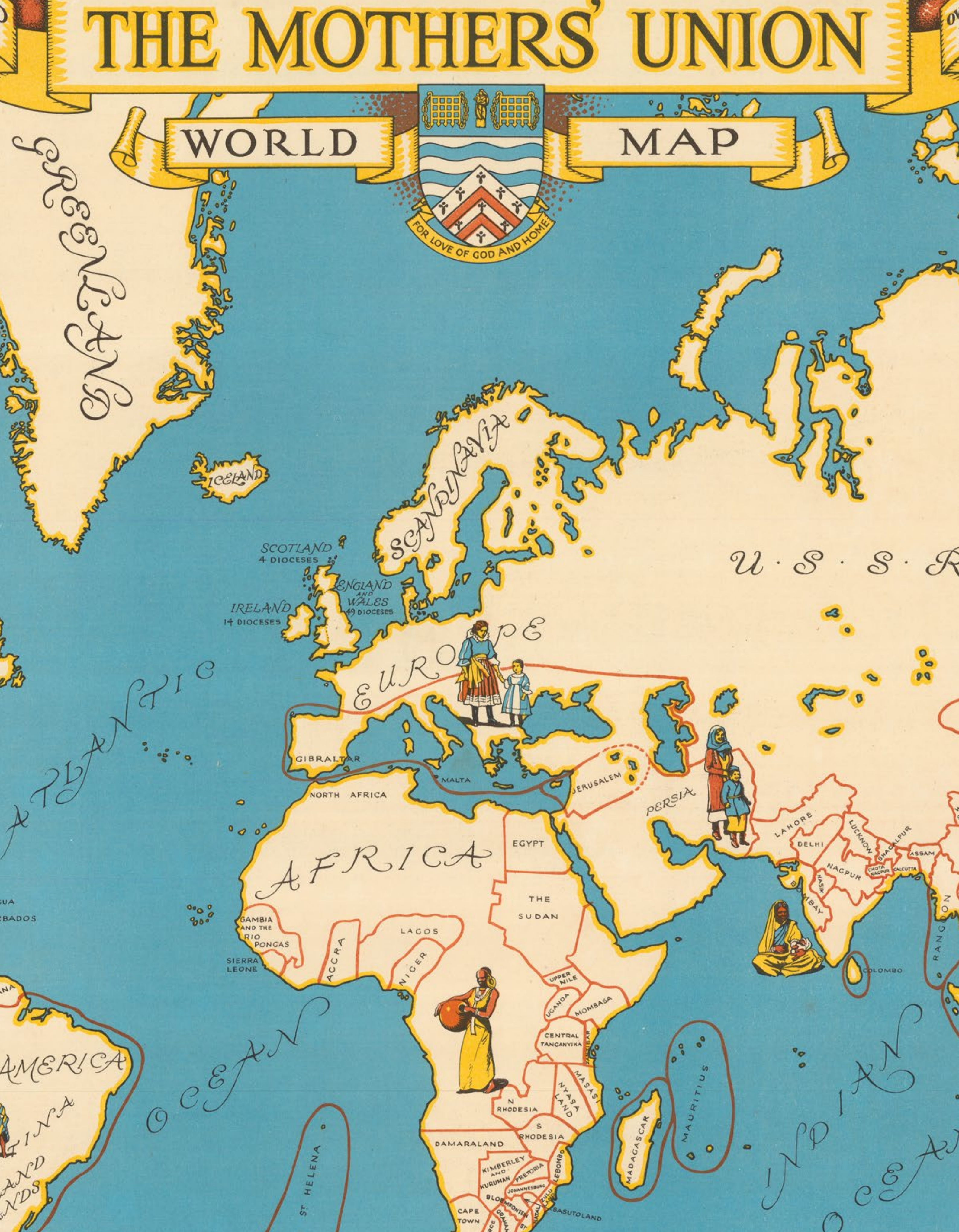
Throughout the twentieth century the Mothers' Union continued to expand across the world, and now has four million members in 84 countries. The group's mission include supporting disadvantaged families, promoting Christian values, and campaigning on an international level.

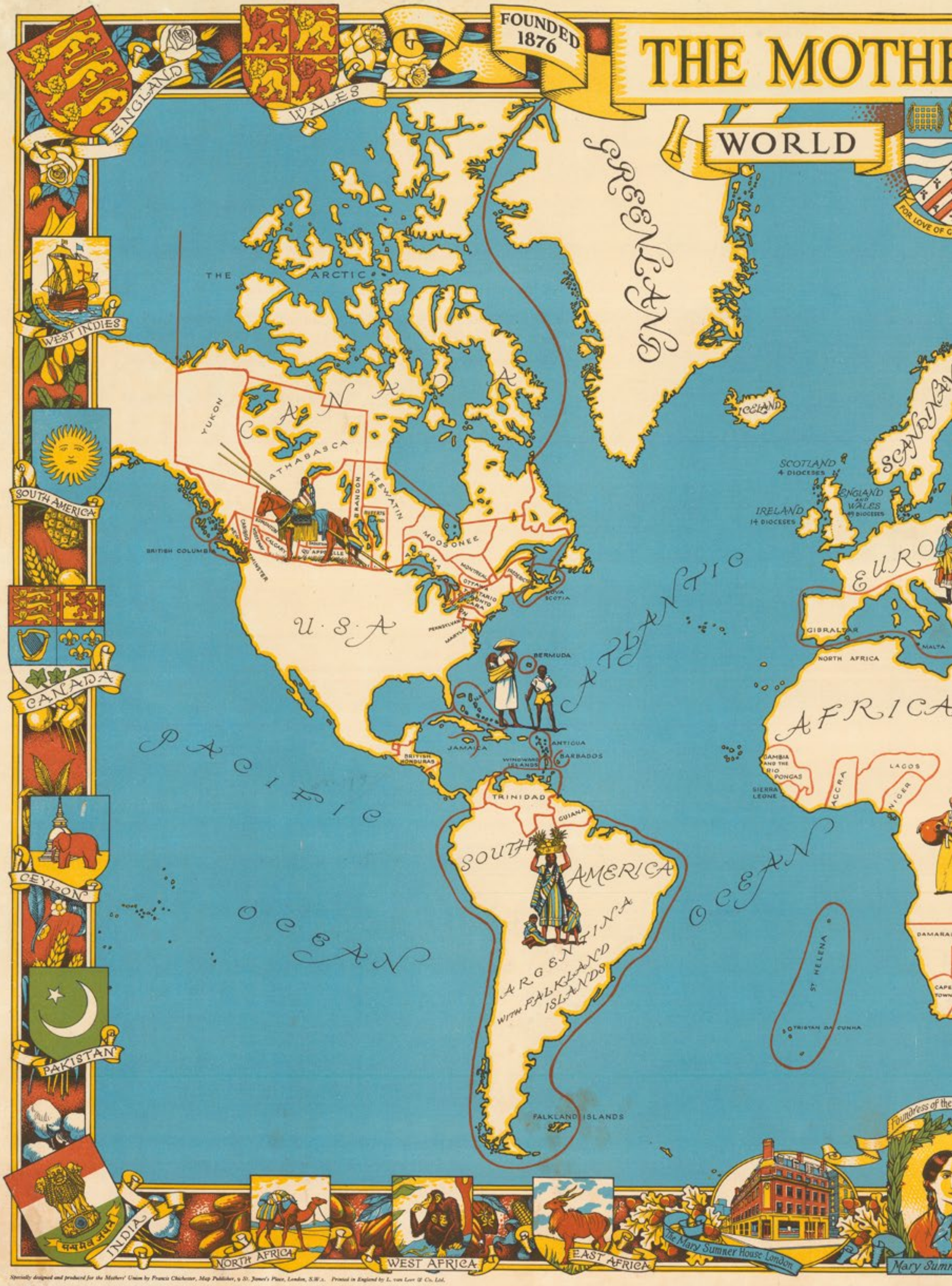
During the first half of the twentieth century, membership of the Mothers' Union soared from 169,000 in 1900 to half a million in 1950. Shortly after hitting the 600,000 members mark, the association produced a commemorative map showing their global presence. Made by map publisher Francis Chichester, the map highlights the expansion of the Mothers' Union across six continents, with red lines delineating areas where its branches were located. There appear to have been no members in the United States, Scandinavia and the U.S.S.R. 11 illustrations across the map depict native mothers, including an American Indian in southern Canada and an Aboriginal family in Australia.

The border displays 22 crests depicting the different countries or regions in which there were members of the Union, illustrated with the land's coat of arms, its flag or a representative vignette. In the lower centre is a portrait of Mary Sumner flanked by images of Mary Sumner House, in London, which continues to serve as the group's headquarters, and the chapel within.

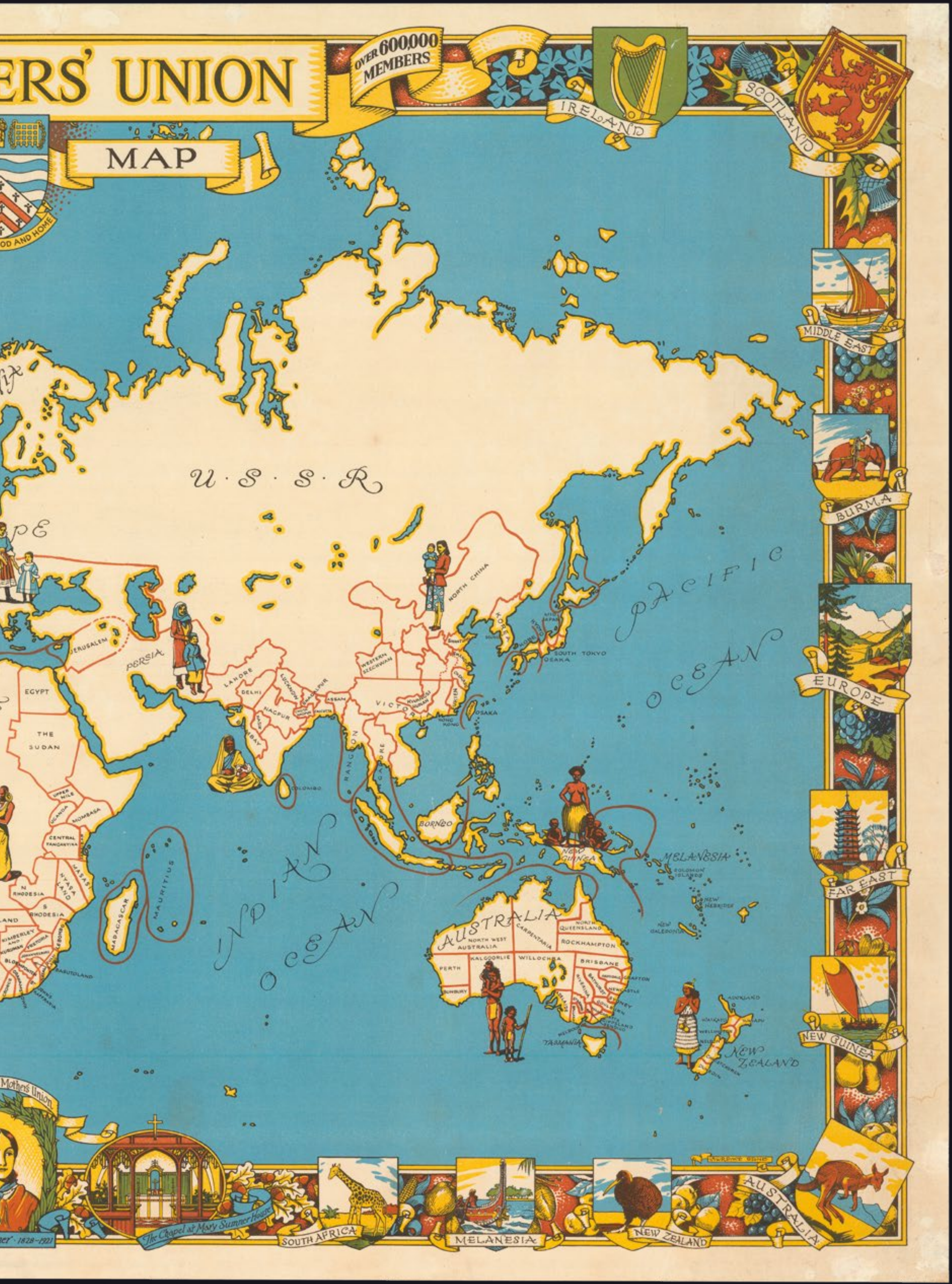
THE MOTHERS' UNION

WORLD MAP


FOR LOVE OF GOD AND HOME
GREENLAND
ICELAND
SCANDINAVIA
U·S·S·R
SCOTLAND
4 DIOCESES
ENGLAND AND WALES
49 DIOCESES
IRELAND
14 DIOCESES
EUROPE
ATLANTIC
GIBRALTAR
MALTA
NORTH AFRICA
JERUSALEM
PERSIA
LAHORE
DELHI
LUCKNOW
BHAGALPUR
ASSAM
NAGPUR
NASIK
CHOTA NAGPUR
CALCUTTA
BOMBAY
RANGOON
COLOMBO
AFRICA
EGYPT
THE SUDAN
GAMBIA AND THE RIO PONGAS
SIERRA LEONE
ACCRA
LAGOS
NIGER
UPPER NILE
UGANDA
MOMBASA
CENTRAL TANGANYIKA
MASASI
NYASA LAND
N RHODESIA
S RHODESIA
DAMARALAND
KIMBERLEY AND KURUMAN
PRETORIA
JOHANNESBURG
LEBOMBO
BLOEMFONTEIN
ZULU LAND
NATAL
BASUTOLAND
CAPE TOWN
ST. HELENA
MADAGASCAR
MAURITIUS
OCEAN
INDIAN
OCEAN
AMERICA
BADOS


FOUNDED 1876
THE MOTHE
WORLD
FOR LOVE OF C
ENGLAND
WALES
WEST INDIES
SOUTH AMERICA
CANADA
CEYLON
PAKISTAN
INDIA
NORTH AFRICA
WEST AFRICA
EAST AFRICA
The Mary Sumner House London
Foundress of the
Mary Sumn
GREENLAND
THE ARCTIC
CANADA
YUKON
ATHABASCA
BRANDON
KEEWATIN
RUPERT'S LAND
MOOSONEE
ALGOMA
MONTREAL
OTTAWA
ONTARIO
TORONTO
NIAGARA
HURON
FREDERICTON
NOVA SCOTIA
CARIBOO
KOOTENAY
EDMONTON
CALGARY
SASKATCHEWAN
QU'APPELLE
NEW WESTMINSTER
BRITISH COLUMBIA
U·S·A
PENNSYLVANIA
MARYLAND
BERMUDA
NASSAU
JAMAICA
ANTIGUA
BARBADOS
WINDWARD ISLANDS
BRITISH HONDURAS
TRINIDAD
GUIANA
ATLANTIC
PACIFIC
OCEAN
OCEAN
SOUTH AMERICA
ARGENTINA WITH FALKLAND ISLANDS
FALKLAND ISLANDS
ICELAND
SCANDINAV
SCOTLAND 4 DIOCESES
IRELAND 14 DIOCESES
ENGLAND AND WALES 43 DIOCESES
EURO
GIBRALTAR
MALTA
NORTH AFRICA
AFRICA
GAMBIA AND THE RIO PONGAS
SIERRA LEONE
ACCRA
LAGOS
NIGER
DAMARA
CAPE TOWN
ST HELENA
TRISTAN DA CUNHA

Specially designed and produced for the Mothers' Union by Francis Chichester, Map Publisher, 9 St. James's Place, London, S.W.1. Printed in England by L. van Leer & Co. Ltd.


ERS' UNION
OVER 600,000 MEMBERS
IRELAND
SCOTLAND
MAP
OD AND HOME
U·S·S·R
PE
MIDDLE EAST
BURMA
EUROPE
FAR EAST
NEW GUINEA
JERUSALEM
PERSIA
EGYPT
THE SUDAN
UPPER NILE
UGANDA
MOMBASA
CENTRAL TANGANYIKA
MASASI
NYASALAND
N RHODESIA
S RHODESIA
KIMBERLEY AND KURUMAN
PRETORIA
LEBOMBO
BLOEMFONTEIN
BASUTOLAND
ST JOHN'S KAFFRARIA
MADAGASCAR
MAURITIUS
COLOMBO
LAHORE
DELHI
LUCKNOW
BHAGALPUR
NAGPUR
ASSAM
BOMBAY
NORTH CHINA
WESTERN SZECHWAN
KWANGSI HUNAN
VICTORIA
HONG KONG
FUKIEN
KOREA
KOBE
KYOTO
SOUTH TOKYO
OSAKA
RANGOON
SINGAPORE
BORNEO
NEW GUINEA
MELANESIA
SOLOMON ISLANDS
NEW HEBRIDES
NEW CALEDONIA
PACIFIC OCEAN
INDIAN OCEAN
AUSTRALIA
NORTH WEST AUSTRALIA
CARPENTARIA
NORTH QUEENSLAND
ROCKHAMPTON
KALGOORLIE
WILLOCHRA
BRISBANE
PERTH
BUNBURY
GRAFTON
NEWCASTLE
SYDNEY
GOULBURN
RIVERINA
BATHURST
GIPPSLAND
BENDIGO
MELBOURNE
TASMANIA
AUCKLAND
WAIKATO
WAIAPU
WELLINGTON
NELSON
CHRISTCHURCH
DUNEDIN
NEW ZEALAND
Mothers' Union
ner · 1828–1921
The Chapel at Mary Sumner House
SOUTH AFRICA
MELANESIA
NEW ZEALAND
AUSTRALIA

The first "good road map" of Barbados

20 ANDERSON, Margaret Swainson

Road Map of Barbados. Compiled from Admiralty Charts 502 and 2485, with additions and corrections,...

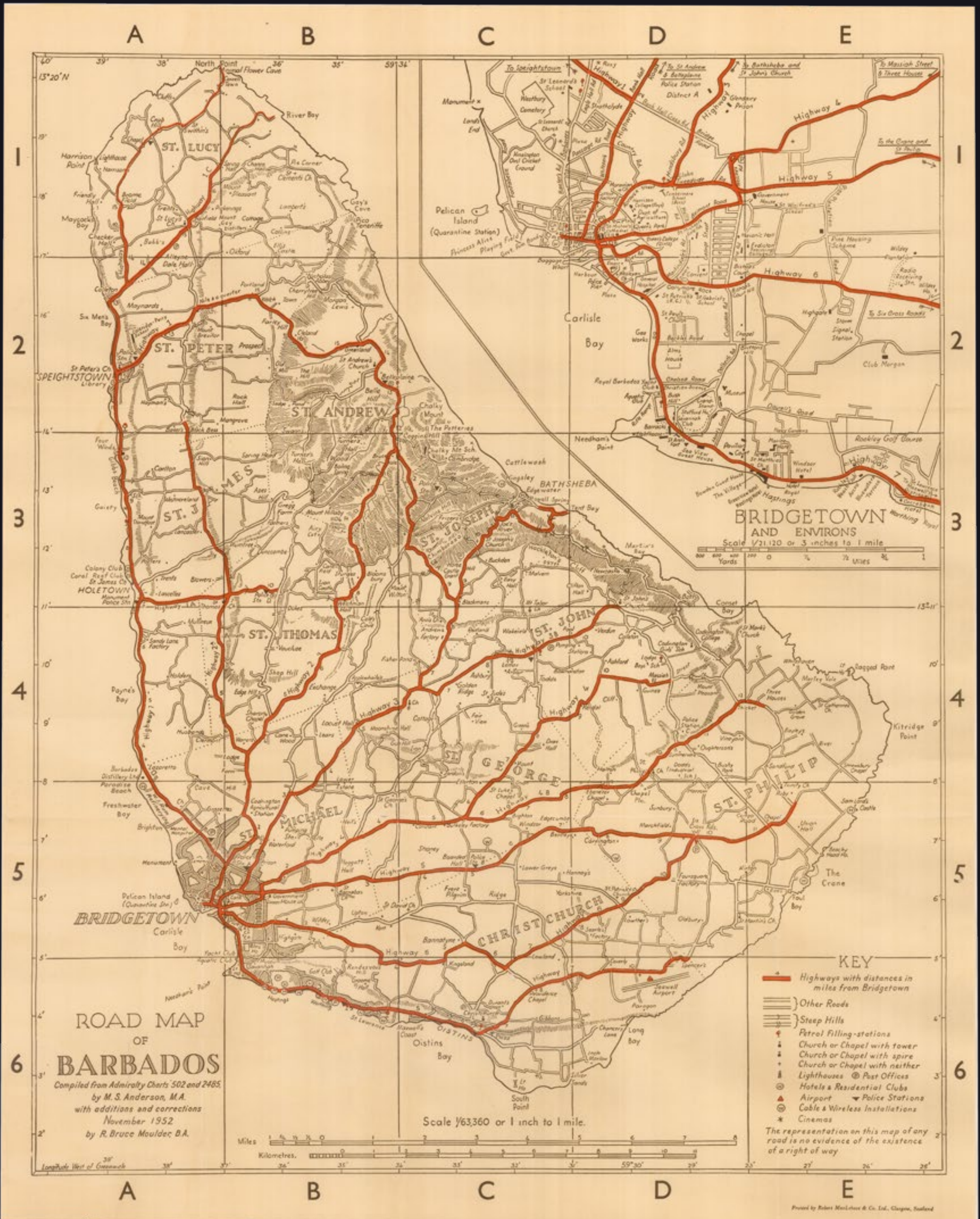
Publication
Glasgow, Scotland, Robert MacLeHose & Co., November, 1952.

Description
Folding lithographed map, with additional colour printing.

Dimensions
560 by 460mm (22 by 18 inches).

A detailed roadmap of Barbados, including an inset of Bridgetown. The roads are marked in a bold red, and features useful to the visitor or traveller, such as hotels and petrol stations, are keyed on the lower right.

Margaret Swainson Anderson (1902-1952) was known to her family as "Ba". On leaving Girton College, Cambridge, in 1924 "she taught for a year at Malvern Girls' College before becoming assistant lecturer in Geography at the Victoria University of Manchester. She returned to Cambridge in 1928 as a demonstrator in the Geography Department. She spent a sabbatical term in 1931 in South America. In 1933 she went to Barbados to marry Frank Anderson, whose family had for many years been friends and neighbours in Cambridge. They spent several years in Barbados while he worked for the Barbados Telephone Company. While in Barbados Margaret Anderson helped to found the Barbados Museum and Historical Society. She also produced the first good road map of the island and, in collaboration with a Commander Wynne, she produced a chart of part of the harbour. Margaret and Frank returned to London in 1936 and in 1937 their daughter Margaret [known as Nan] was born. On the outbreak of war Margaret returned to Cambridge and worked as a Plotter, Eastern Regional HQ, Civil Defence, 1939-40. In 1944 she began to direct studies in Geography at Girton, and also became a staff fellow and a university lecturer in Geography. Her publications include 'Systematic Geography: Part I World Relations', George Philip & Son 1937, and 'Geography of Living Things', English Universities Press 1951. Harriet Steers wrote in her obituary for Margaret Anderson (see GCPP Anderson 1/1) that her "approach to geographical work was in many ways unique because of her grip of, and interest in, the Natural Sciences. It was this distinction in geographical technique which led to the hope in Cambridge of a further and thorough treatment of Biogeography in the Tripos course". During the 1940s and early 1950s Margaret Anderson lived at Old Victoria Farmhouse in Hardwick, where she kept animals and poultry, her wide knowledge of flowers and birds adding to her enjoyment of life in the country. Margaret Anderson died on 15 September 1952 at the age of 50. At the time of her death her latest book, an anthology of travel, was in galley proof: it was published with the title 'Splendour of Earth' by George Philip and Son Ltd in 1954, including her own introduction dating from circa June 1952" (University of Cambridge online).


A
B
C
D
E
1
2
3
4
5
6
North Point
River Bay
Harrison Point
ST. LUCY
ST. PETER
SPEIGHTSTOWN
ST. ANDREW
ST. JAMES
HOLETOWN
ST. JOSEPH
BATHSHEBA
ST. THOMAS
ST. JOHN
ST. GEORGE
ST. MICHAEL
ST. PHILIP
CHRIST CHURCH
BRIDGETOWN
Carlisle Bay
Pelican Island (Quarantine Stn.)
Needham's Point
Oistins Bay
OISTINS
South Point
Seawell Airport
Long Bay
The Crane
Ragged Point
Kitridge Point
Highway 1
Highway 2
Highway 3
Highway 4
Highway 5
Highway 6
Highway 7
BRIDGETOWN AND ENVIRONS
Scale 1/21,120 or 3 inches to 1 mile
Yards
Miles
Kilometres.
Longitude West of Greenwich

ROAD MAP
OF
BARBADOS

Compiled from Admiralty Charts 502 and 2485
by M. S. Anderson, M.A.
with additions and corrections
November 1952
by R. Bruce Moulder, B.A.

Scale 1/63,360 or 1 inch to 1 mile.

KEY

- Highways with distances in miles from Bridgetown
- Other Roads
- Steep Hills
- Petrol Filling-stations
- Church or Chapel with tower
- Church or Chapel with spire
- Church or Chapel with neither
- Lighthouses
- Post Offices
- Hotels & Residential Clubs
- Airport
- Police Stations
- Cable & Wireless Installations
- Cinemas

The representation on this map of any road is no evidence of the existence of a right of way

Printed by Robert MacLehose & Co. Ltd., Glasgow, Scotland

More than just an "A-Z"

21 **PEARSALL, Phyllis Isobella**

The Premier Map of London & Suburbs. Produced under the direction of Ph. Pearsall F.R.G.S.

Publication
Kent, Geographers' Map Co., Ltd., [after 1957].

Description
Large colour printed map, folding into blue printed white self-wrappers.

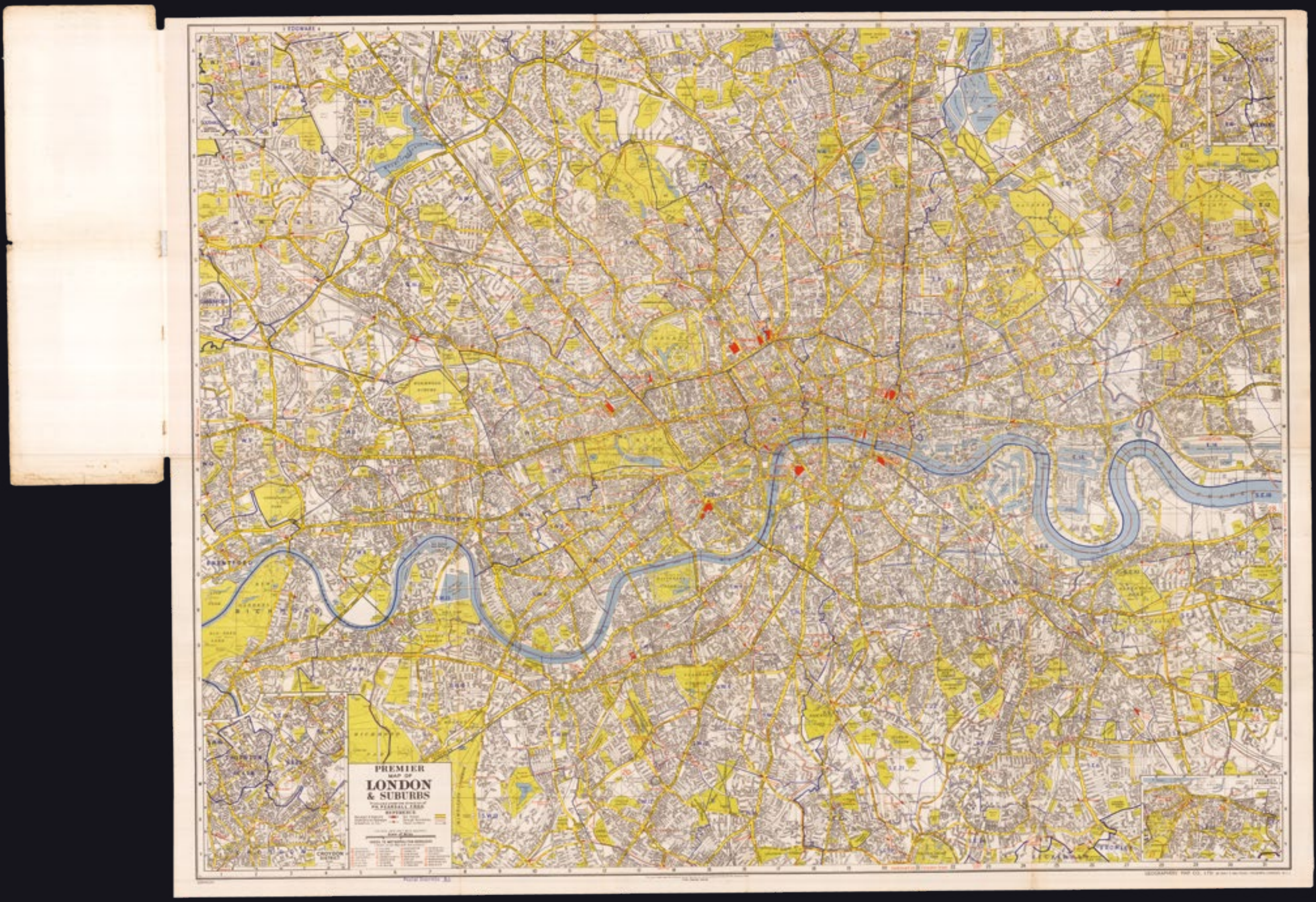
Dimensions
875 by 1135mm (34.5 by 44.75 inches).

References
Baker, for ODNB online. 24064

With insets of 'Hanwell & West Ealing', 'Croydon District', 'Ilford & East Ham', 'Woolwich & Plumstead', and 'Hanwell & West Ealing'.

One dark evening in 1935, Phyllis Pearsall (1906-1996) became lost. Hoping to pre-empt the recurrence of this annoying event, Pearsall realized that "the most recent street map of London dated from 1919, [and so] she decided to produce her own. Starting with the Ordnance Survey sheets she walked the streets of London for eighteen hours a day, compiling a 23,000 card alphabetical index of streets, which she kept in shoeboxes under her bed, and produced the first 'London A–Z Street Atlas' in 1936. After W. H. Smith had taken her first 250 copies the "A–Z" was in great demand, and she founded the Geographers' A to Z Map Co. Ltd in the same year. Her father [Alexander Gross, mapmaker, bankrupt, and bolter - ed.] had started a new map-publishing business in New York, producing street maps, and in order to help him re-establish himself as a map publisher in England she insisted, until his death in 1957, that all her publications carry the inscription "produced under the direction of Alexander Gross", although he was not involved in the business in any way. She did all the research, printing, and distribution, and employed Mr Fountain, who had worked for her father, as her draughtsman. Her next publications included the 'Premier Map of London', 'Thirty-Five Miles Round London', and 'London to the Sea', as well as maps of England and Wales, and the world. As war became increasingly likely she turned her attention to war maps, producing maps of northern France, Norway and Denmark, the Netherlands and Belgium, and Finland. With government restrictions on the production of large-scale maps, in 1941 she joined the civil service, and worked in the home intelligence department of the Ministry of Information from 1942 to 1945, but at the end of the war she turned down the offer of a permanent senior civil service job at the Board of Trade and returned to the Geographers A to Z Map Co. Ltd" (Baker).

The PREMIER Map
London
AND SUBURBS
complete with street index and main road house numbers
7/6 paper
Produced under the direction of PHYLLIS PEARSALL F.R.G.S.
GEOGRAPHERS' MAP CO. LTD. OTFORD ROAD SEVENOAKS, KENT


PREMIER
MAP OF
LONDON
& SUBURBS
REFERENCE
CROYDON DISTRICT
EDGWARE
BRENTFORD
RICHMOND PARK
WORMWOOD SCRUBS
BROMLEY
GEOGRAPHERS' MAP CO. LTD

Earth shattering – the first maps of the world's ocean floors by Marie Tharp

22 **THARP, Marie; Bruce HEEZEN; Tanguy DE REMUR; Heinrich C. BERANN; and others**

Tharp's personal collection of her most important maps.

Publication
USA, 1964 – 1982.

Description
6 large chromolithographed wall maps; 4 double-page colour printed maps; 25 wood and zinc printer's blocks; 2 colour printed post cards; and 2 colour printed panoramas.

In 1997, Marie Tharp (1920-2006) was acclaimed by the Library of Congress as "one of the four greatest cartographers of the 20th Century", the other three (Arthur Robinson, Hal Shelton, and Alan Voorhees) were all men.

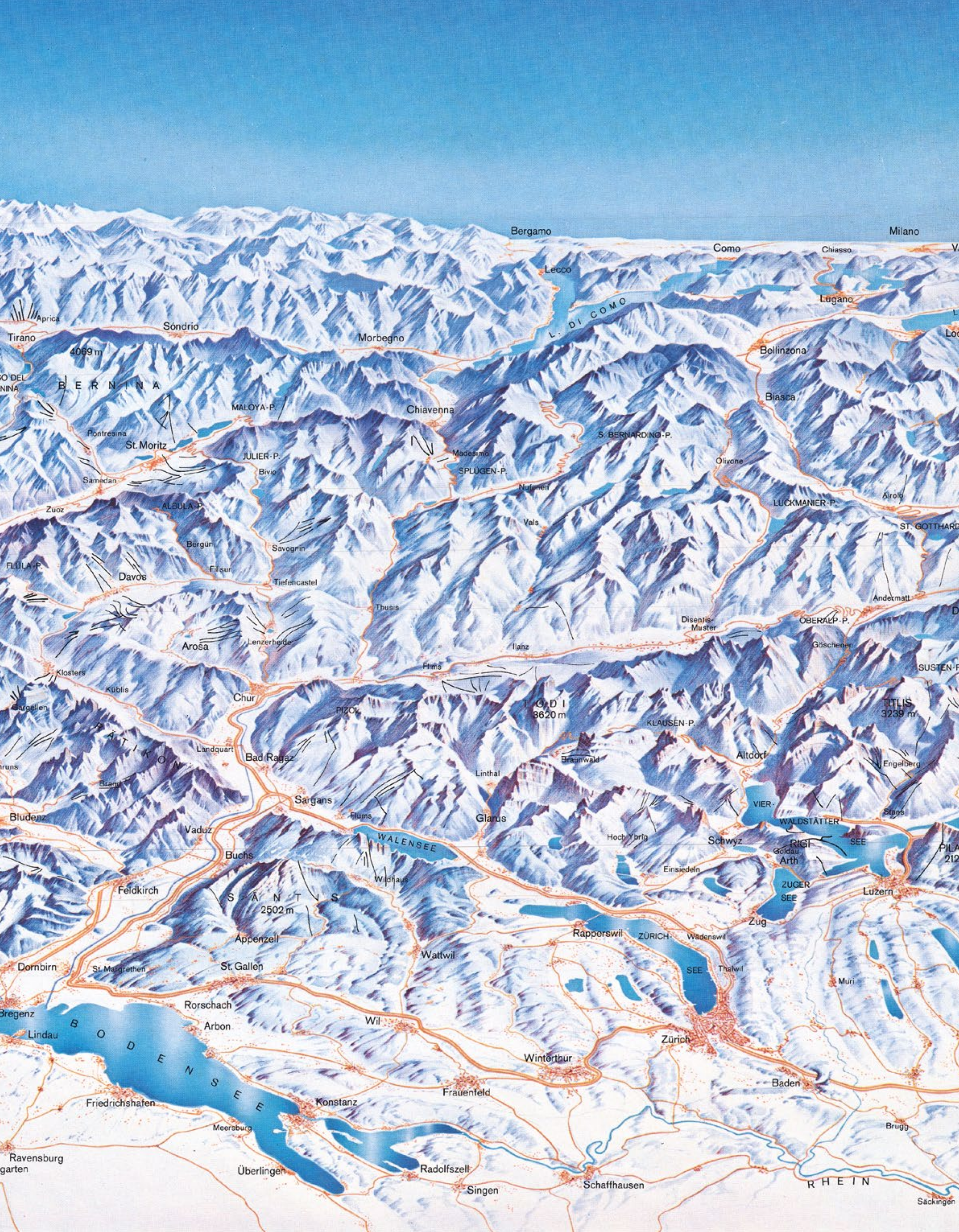
Originally from a rural community in Michigan, Tharp was born with mapmaking in her blood - her father was a surveyor for the U.S. Department of Agriculture – and she pursued her own career from an early age, gaining a master's in geology from the University of Michigan, and a degree in mathematics from the University of Tulsa, all while working as a geologist for an Oklahoma oil company, despite being unable to attend field-trips because of her gender. Indeed, her position was only made available to a woman, because the majority male workforce was away fighting WWII.

After WWII, in 1948, Tharp began working at the Lamont Geological Laboratory (now the Lamont-Doherty Earth Observatory at Columbia University), studying the structure of the ocean floors of the world. Her results, combined with those of her close colleague Bruce Heezen (1924-1977), helped to prove the controversial and revolutionary theory of plate tectonics. This, again, in spite of the fact, that she was prohibited as a woman from going aboard ship for the necessary data-gathering expeditions.

Tharp donated her comprehensive archive, resulting from more than 35 years' work, to the Library of Congress in 1995, but retained this selection of her most important and influential maps for herself.

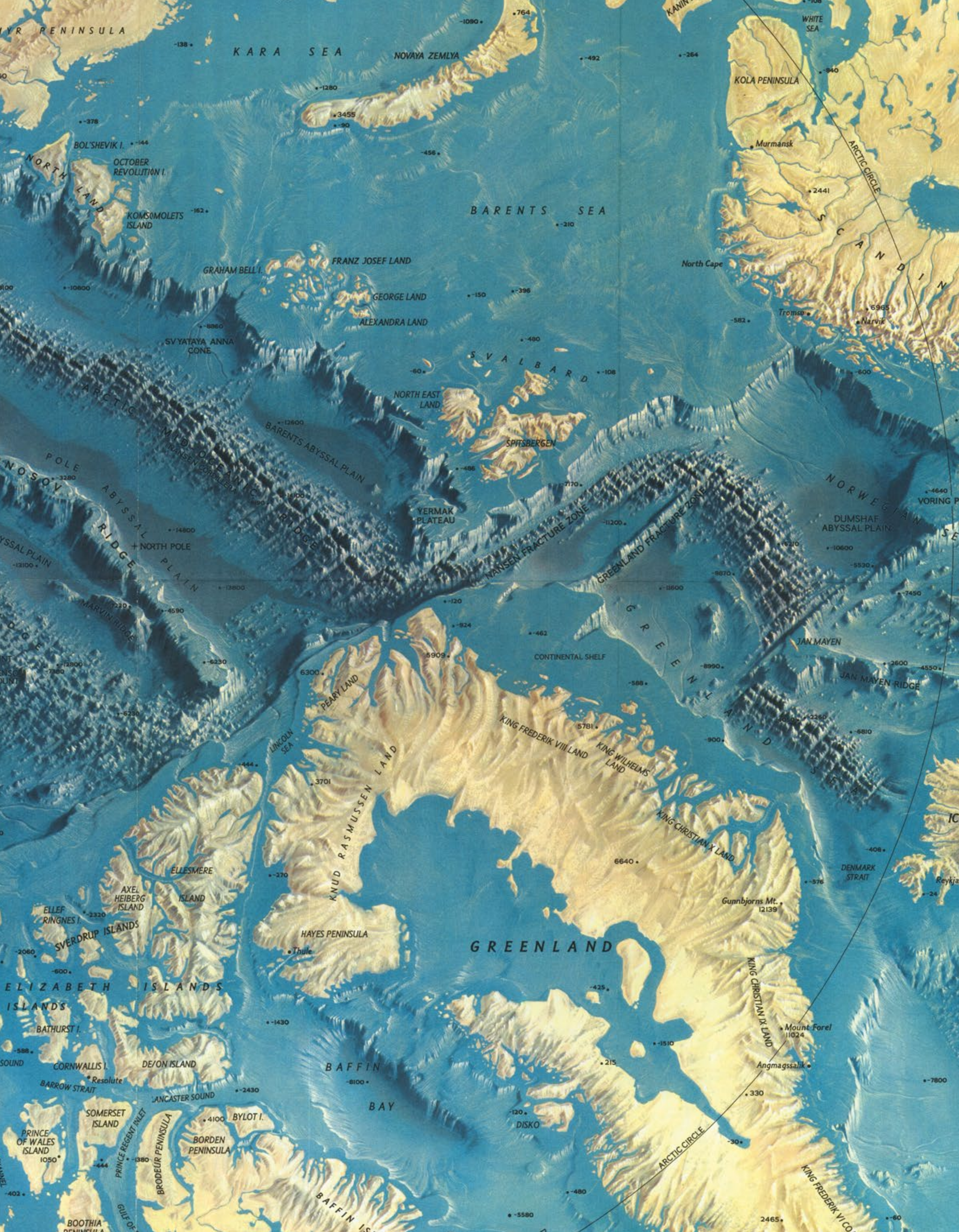
Mapping the world's ocean floors

As early as 1952 Marie Tharp was convinced that the Rift Valley "was real, in part because of the high correlation between shallow-focus earthquakes and the ridge's central axis, although two years passed until Heezen accepted her interpretation. This was a significant development: Heezen then came to accept that the Rift Valley in Africa was morphologically similar to the central valley of the mid-Atlantic Ridge, and he visited the Rift Valley to better understand its geology. Heezen also believed that the structure of the world-encircling mid-ocean ridge system supported the theory of the expanding earth, which held that the earth's major geophysical features were best explained if the planet was slowly swelling over time... Both Heezen and Tharp understood how much was at stake in developing theories of the earth, and both felt passionate about their, at times differing, interpretations of the North Atlantic seafloor. Sometimes mapping disagreements between them boiled over. Occasionally, Heezen grabbed a power eraser to vanquish Tharp's interpretation of the trend lines for undersea mountain chains; after reviewing their data, Tharp frequently redrew these landforms along her preferred orientations, employing all available seismic, magnetic, coring, and bottom-photography data. What is clear is that this creative couple in science mutually produced the North Atlantic physiographic map" (Doel, Levin, Marker).


Bergamo
Milano
Como
Chiasso
Lecco
Lugano
L. DI COMO
Aprica
Tirano
Sóndrio
Morbegno
Bellinzona
4069 m
BERNINA
Biasca
MALOYA-P.
Chiavenna
Pontresina
St. Moritz
S. BERNARDINO-P.
JULIER-P.
Madesimo
Olivone
Bivio
SPLÜGEN-P.
Samedan
Nufenen
LUCKMANIER-P.
Airolo
Zuoz
ALBULA-P.
Vals
Bergün
Savognin
FLÜELA-P.
Filisur
Davos
Tiefencastel
Thusis
Andermatt
Disentis-Muster
OBERALP-P.
Arosa
Lenzerheide
Ilanz
Göschenen
Klosters
Flims
Küblis
Chur
TÖDI
3620 m
TITLIS
3239 m
Gargellen
PIZOL
KLAUSEN-P.
RÄTIKON
Landquart
Bad Ragaz
Braunwald
Altdorf
Engelberg
Brand
Linthal
Sargans
Bludenz
Flums
Glarus
VIER-
WALDSTÄTTER
SEE
Stans
Vaduz
WALENSEE
Hoch Ybrig
Schwyz
RIGI
Goldau
Arth
Buchs
Einsiedeln
Wildhaus
Feldkirch
ZUGER
SEE
Luzern
SÄNTIS
2502 m
Zug
Appenzell
Rapperswil
ZÜRICH-
Wädenswil
SEE
Thalwil
Wattwil
Dornbirn
St. Margrethen
St. Gallen
Muri
Rorschach
Bregenz
Arbon
BODENSEE
Wil
Lindau
Zürich
Winterthur
Baden
Frauenfeld
Friedrichshafen
Konstanz
Meersburg
Brugg
Ravensburg
Überlingen
Radolfszell
RHEIN
Singen
Schaffhausen
Säckingen

Marie Tharp and Bruce Heezen met at Columbia University in 1948, where they worked for Maurice "Doc" Ewing (1906-1974), drafting and plotting ocean floor profiles.

Starting with sounding data collected between 1946 and 1952 on cruises of the 'Atlantis', supplemented by data from USN 'Stewart', which in 1921 had been the first Navy ship to take a continuous sounding track across the Atlantic, and then information from a newly invented Precision Depth Recorder installed on the 'Vema', Tharp and her colleague Hester Haring, plotted topographical profiles on a mapsheet: "Eventually, after the plotting, drawing, checking, correcting, redrawing and rechecking were done, I had a hodgepodge of disjointed and disconnected profiles of sections of the North Atlantic floor... After another six weeks to arrange and piece together the profiles in proper order from west to east, I completed six more-or-less parallel, transoceanic profiles of the North Atlantic. I noticed immediately the general similarity in the shape of the ridge in each profile. But when I compared the profiles, I was struck by the fact that the only consistent match-up was a V- shaped indentation in the center of the profiles. The individual mountains didn't match up, but the cleft did, especially in the three northernmost profiles. I thought it might be a rift valley that cut into the ridge at its crest and continued all along its axis. When I showed what I found to Bruce, he groaned and said, "It cannot be. It looks too much like continental drift". At the time, believing in the theory of continental drift was almost a form of scientific heresy. Almost everyone in the United States thought continental drift was impossible. Bruce initially dismissed my interpretation of the profiles as "girl talk"" (Tharp).


YR PENINSULA
KARA SEA
NOVAYA ZEMLYA
-138
-1090
764
-1280
3455
-90
-378
-456
-492
-264
KANIN
-108
WHITE SEA
KOLA PENINSULA
-840
Murmansk
ARCTIC CIRCLE
2441
SCANDIN
BOL'SHEVIK I.
-144
NORTH LAND
OCTOBER REVOLUTION I.
KOMSOMOLETS ISLAND
-162
BARENTS SEA
-210
FRANZ JOSEF LAND
GRAHAM BELL I.
GEORGE LAND
ALEXANDRA LAND
-150
-396
North Cape
Tromso
6965
Narvik
-582
-10800
-8860
SV YATAYA ANNA CONE
-480
SVALBARD
-60
-108
-600
NORTH EAST LAND
ARCTIC MID-OCEANIC RIDGE
NANSEN CORDILLERA
-12600
BARENTS ABYSSAL PLAIN
SPITSBERGEN
-486
POLE ABYSSAL PLAIN
NOSOV RIDGE
-3280
-14100
YERMAK PLATEAU
-7170
NORWEGIAN SE
-4640
VORING P
DUMSHAF ABYSSAL PLAIN
-14800
NORTH POLE
NANSEN FRACTURE ZONE
-11200
GREENLAND FRACTURE ZONE
-6210
-10600
-5530
YSSAL PLAIN
-13100
-13800
-9870
-11600
-120
-7450
MARVIN RIDGE
7220
-4590
-924
-462
GREENLAND SEA
JAN MAYEN
-12800
-7380
-6230
5909
6300
CONTINENTAL SHELF
-8990
-2600
-4550
JAN MAYEN RIDGE
-588
PEARY LAND
-6230
KING FREDERIK VIII LAND
5781
KING WILHELMS LAND
-2260
-6810
LINCOLN SEA
-900
-444
3701
KNUD RASMUSSEN LAND
KING CHRISTIAN X LAND
IC
-408
6640
DENMARK STRAIT
ELLESMERE ISLAND
-270
-576
Reykja
-24
AXEL HEIBERG ISLAND
ELLEF RINGNES I.
-2320
Gunnbjorns Mt. 12139
SVERDRUP ISLANDS
HAYES PENINSULA
Thule
GREENLAND
-2060
-600
ELIZABETH ISLANDS
ISLANDS
-425
KING CHRISTIAN IX LAND
-1430
BATHURST I.
Mount Forel 11024
-588
SOUND
-1510
CORNWALLIS I.
DEVON ISLAND
215
BAFFIN BAY
Angmagssalik
Resolute
BARROW STRAIT
-8100
-7800
LANCASTER SOUND
-2430
330
SOMERSET ISLAND
4100
BYLOT I.
-120
DISKO
PRINCE OF WALES ISLAND
PRINCE REGENT INLET
BORDEN PENINSULA
-30
1050
-444
-1380
BRODEUR PENINSULA
ARCTIC CIRCLE
KING FREDERIK VI CO
-402
-480
BAFFIN IS
-5580
2465
-60
BOOTHIA PENINSULA
GULF OF

The first comprehensive scientific map of any ocean floor

A **THARP, Marie; and Bruce C. HEEZEN**

Physiographic Diagram of the North Atlantic Ocean.

Publication
Boulder, Colorado, The Geological Society of America, Inc., 1968.

Description
Chromolithographed map, a bit frayed at the edges. Revised edition.

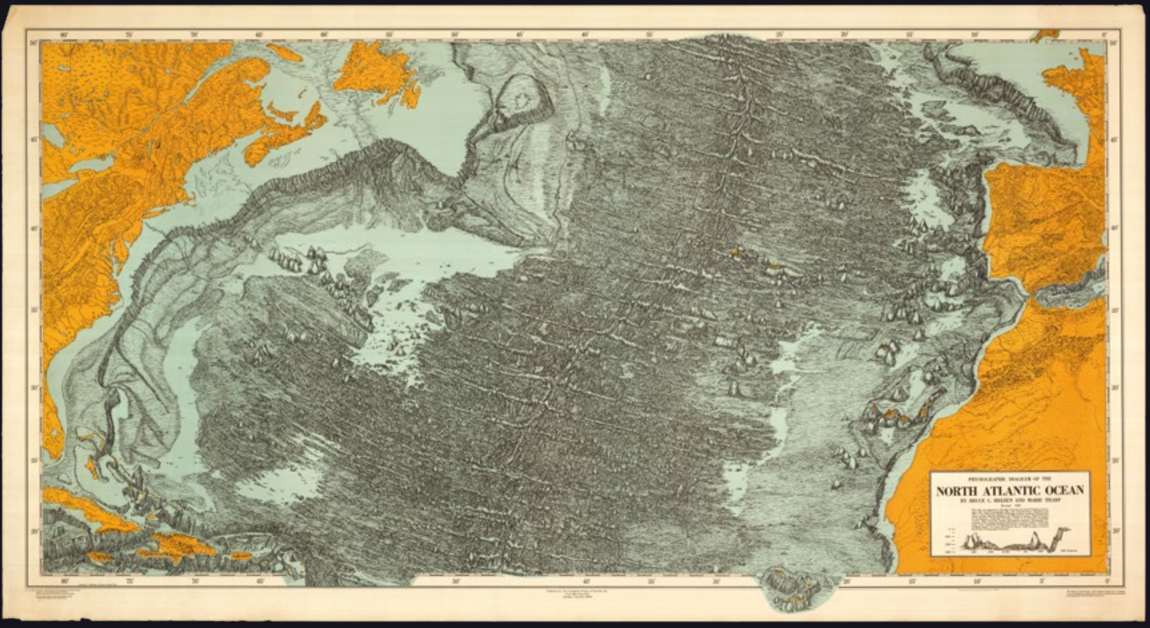
Dimensions
710 by 1410mm (28 by 55.5 inches).

References
Robert S. Dietz, U.S. Coast and Geodetic Survey, 'Geological Society of America Charts', in 'Science', May 1965, Vol. 148, Issue 3671, pp. 809; Doel, Levin, Marker, 'Extending modern cartography to the ocean depths: military patronage, Cold War priorities, and the Heezen–Tharp mapping project, 1952–1959', 2006; Tharp, 'Connect the Dots: Mapping the Seafloor and Discovering the Mid-ocean Ridge', Chapter 2 in: Lamont-Doherty Earth Observatory of Columbia 'Twelve Perspectives on the First Fifty Years 1949-1999', Edited by Laurence Lippsett.

First published in 1957, to accompany G.S.A. Special Paper 65: 'The Floors of the Oceans', "a descriptive text treating the nomenclature and the morphological geological and geophysical characteristics of the area". This is the first comprehensive scientific map of any ocean floor, covering an area of nearly 12 million square miles. It provided "critical evidence in support of the theory of plate tectonics, accepted by a majority of earth scientists by the end of the 1960s. In terms of its cartographic significance, the first published Heezen-Tharp map, initially controversial, ranks among the most innovative mapping achievements of the last half-century" (Doel, Levin, Marker).

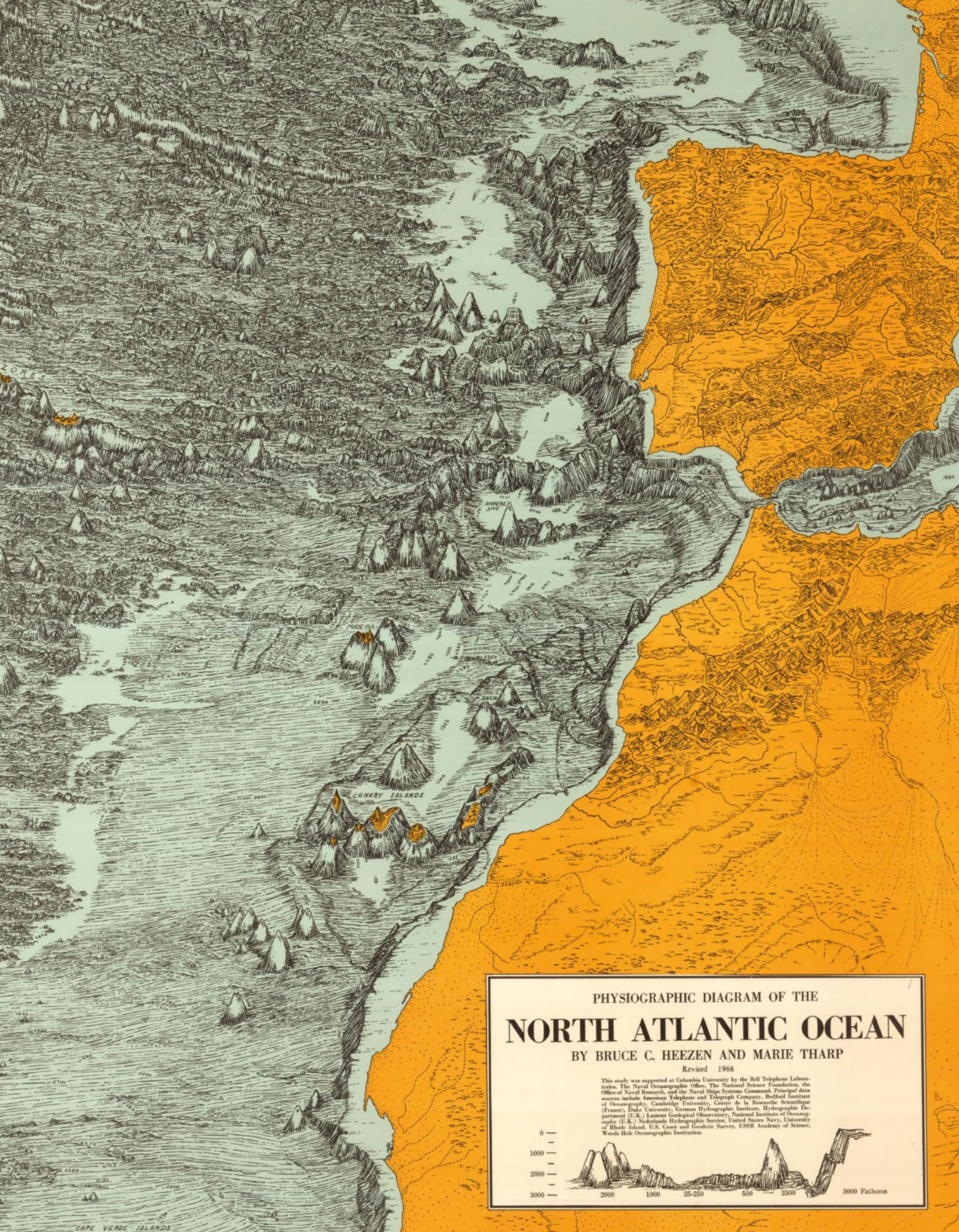
Tharp and Heezen's map clearly defines, in large-scale, the physiological features of the ocean floor, in particular highlighting the Rift Valley of the mid-oceanic ridge, which Tharp observed, and immediately understood the significance of, in support of the then controversial ideas of continental drift and plate tectonics. But Heezen disagreed. As early as 1952 Tharp was convinced that the Rift Valley "was real, in part because of the high correlation between shallow-focus earthquakes and the ridge's central axis, although two years passed until Heezen accepted her interpretation. This was a significant development: Heezen then came to accept that the Rift Valley in Africa was morphologically similar to the central valley of the mid-Atlantic Ridge, and he visited the Rift Valley to better understand its geology. Heezen also believed that the structure of the world-encircling mid-ocean ridge system supported the theory of the expanding earth, which held that the earth's major geophysical features were best explained if the planet was slowly swelling over time... Both Heezen and Tharp understood how much was at stake in developing theories of the earth, and both felt passionate about their, at times differing, interpretations of the North Atlantic seafloor. Sometimes mapping disagreements between them boiled over. Occasionally, Heezen grabbed a power eraser to vanquish Tharp's interpretation of the trend lines for undersea mountain chains; after reviewing their data, Tharp frequently redrew these landforms along her preferred orientations, employing all available seismic, magnetic, coring, and bottom-photography data. What is clear is that this creative couple in science mutually produced the North Atlantic physiographic map" (Doel, Levin, Marker).

The early stages of the Cold War provided extensive military funding for oceanographic research which gave Tharp and Heezen some of their raw data. However, military secrecy also dictated that Heezen and Tharp use their now characteristic physiographic way of depicting that information, rather than the more conventional two-dimensional expressions of contour lines, as disclosing depths at precise positions was restricted. In this, revised, version of the map, Tharp and Heezen are able to acknowledge openly the sources of their information: "This study was supported at Columbia University by the Bell Telephone Laboratories,


PHYSIOGRAPHIC DIAGRAM OF THE
NORTH ATLANTIC OCEAN
BY BRUCE C. HEEZEN AND MARIE THARP
80°
75°
70°
65°
60°
55°
50°
45°
40°
35°
30°
25°
20°
15°
10°
5°
0°

The Naval Oceanographic Office, The National Science Foundation, the Office of Naval Research, and the Naval Ships Systems Command. Principal data sources include American Telephone and Telegraph Company, Bedford Institute of Oceanography, Cambridge University, Centre de la Researche Scientifique (France), Duke University, German Hydrographic Institute, Hydrographic Department (U.K.) Lamont Geological Observatory, National Institute of Oceanography (U.K.) Nederlande Hydrographic Service, United States Navy, University of Rhode Island, U.S. Coast and Geodetic Survey, USSR Academy of Science, Woods Hole Oceanographic Institution".

Provenance
Marie Tharp (1920-2006)


AZORES
AMPERE SPIT
MADEIRA
DACIA
SALVAGE
CANARY ISLANDS
CAPE VERDE ISLANDS
0
1000
2000
3000
2000
1000
25-250
500
2500
3000 Fathoms

PHYSIOGRAPHIC DIAGRAM OF THE

NORTH ATLANTIC OCEAN

BY BRUCE C. HEEZEN AND MARIE THARP

Revised 1968

This study was supported at Columbia University by the Bell Telephone Laboratories, The Naval Oceanographic Office, The National Science Foundation, the Office of Naval Research, and the Naval Ships Systems Command. Principal data sources include American Telephone and Telegraph Company, Bedford Institute of Oceanography, Cambridge University, Centre de la Researche Scientifique (France), Duke University, German Hydrographic Institute, Hydrographic Department (U.K.) Lamont Geological Observatory, National Institute of Oceanography (U.K.) Nederlands Hydrographic Service, United States Navy, University of Rhode Island, U.S. Coast and Geodetic Survey, USSR Academy of Science, Woods Hole Oceanographic Institution.

The first scientific map of the floor of the Indian Ocean

B **THARP, Marie; and Bruce C. HEEZEN**

Physiographic Diagram of the Indian Ocean The Red Sea, the South China Sea, the Sulu Sea and the Celebes Sea.

Publication
New York, The Geological Society of America, Inc., 1964.

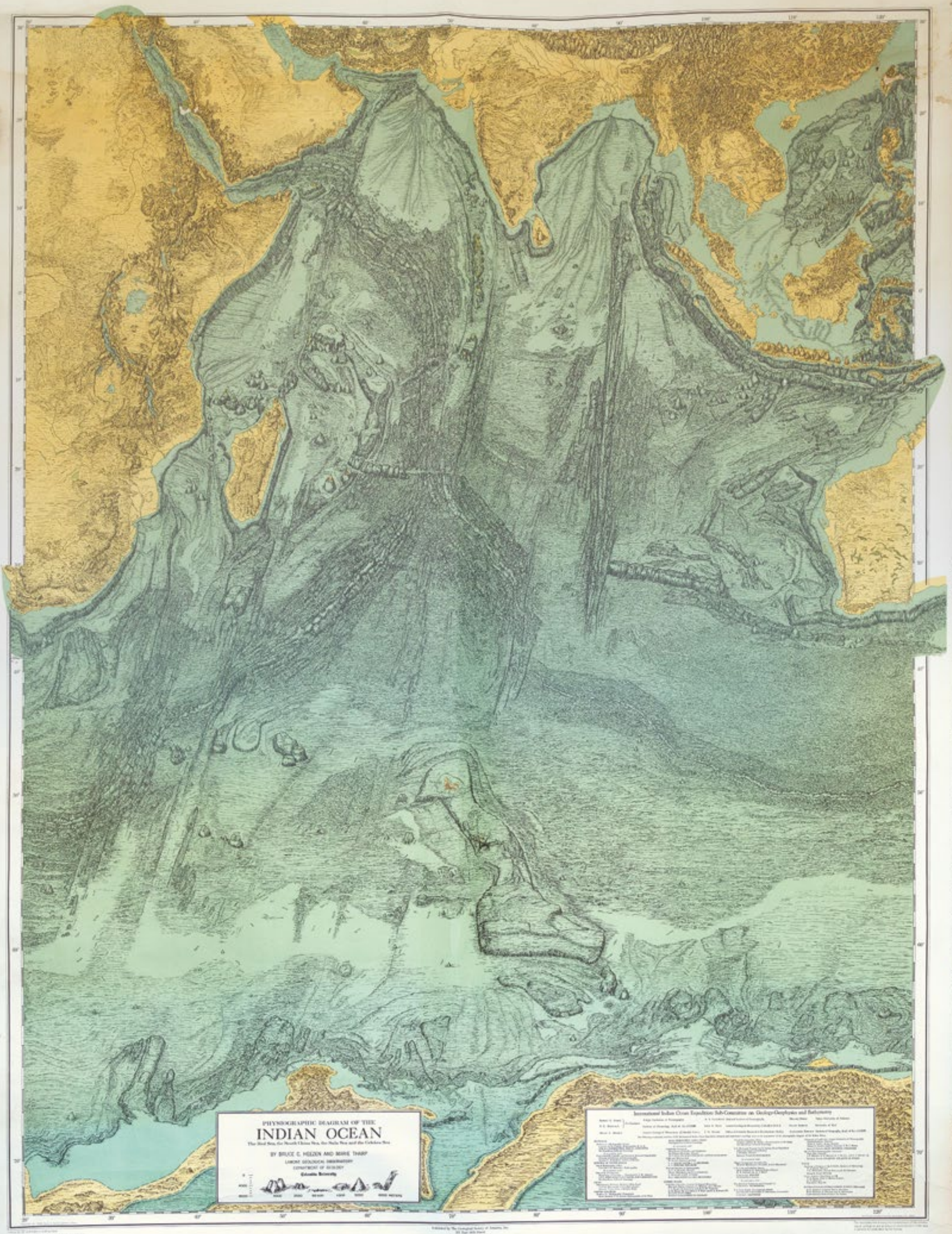
Description
Chromolithographed map.

Dimensions
1650 by 1270mm (65 by 50 inches).

This revolutionary map shows for the first time the general geomorphology of the Indian Ocean. Tharp and Heezen used bathymetric data obtained by soundings to show physiographic provinces, including continental margins, “microcontinents”, ocean-basin floors, plateaus and aseismic ridges, mid-oceanic ridges, and fracture zones. Crucially confirms theories of continental drift, and that the Indian subcontinent may have moved northwards by as much as fifty degrees.

The third in Tharp and Heezen’s physiographic diagrams of the world’s ocean floors, it is preceded by those of the North and South Atlantic. Their first map was published as an accompaniment to the Bell Telephone System’s ‘Technical Journal’ (1957), followed by a Geological Society of America edition in 1959. Most of the data was collected in association with the International Indian Ocean Expedition, including Australian, South African, Japanese, UK, USA, and Russian cooperation, with USSR’s ships ‘Vitiaz’ and ‘Ob’.

Unlike flat contour maps, physiographic maps show the terrain as it would look from a low-flying plane. It captures the seafloor’s “many textured variations, contrasting the smoothness of the abyssal plains, for example, with the ruggedness of the mountains along the ridges” (Tharp). As detailed contour maps of the ocean floor were classified by the U.S. Navy, physiographic diagrams enabled Tharp and Heezen to publish their data, and to reach a wider audience who could visualize the seafloor, as a result.



PHYSIOGRAPHIC DIAGRAM OF THE

INDIAN OCEAN

The Red Sea, the South China Sea, the Sulu Sea and the Celebes Sea

BY BRUCE C. HEEZEN AND MARIE THARP

LAMONT GEOLOGICAL OBSERVATORY
DEPARTMENT OF GEOLOGY
Columbia University

Published by The Geological Society of America, Inc.
231 East 46th Street
New York, New York 10017

The entire Pacific Ocean floor

C **THARP, Marie; Bruce C. HEEZEN; and Heinrich C. BERANN**

Pacific Ocean Floor.

Publication
[Washington DC], Produced in the Geographic Art Division for National Geographic Magazine, October 1969.

Description
Folding colour printed map, printed on both sides.

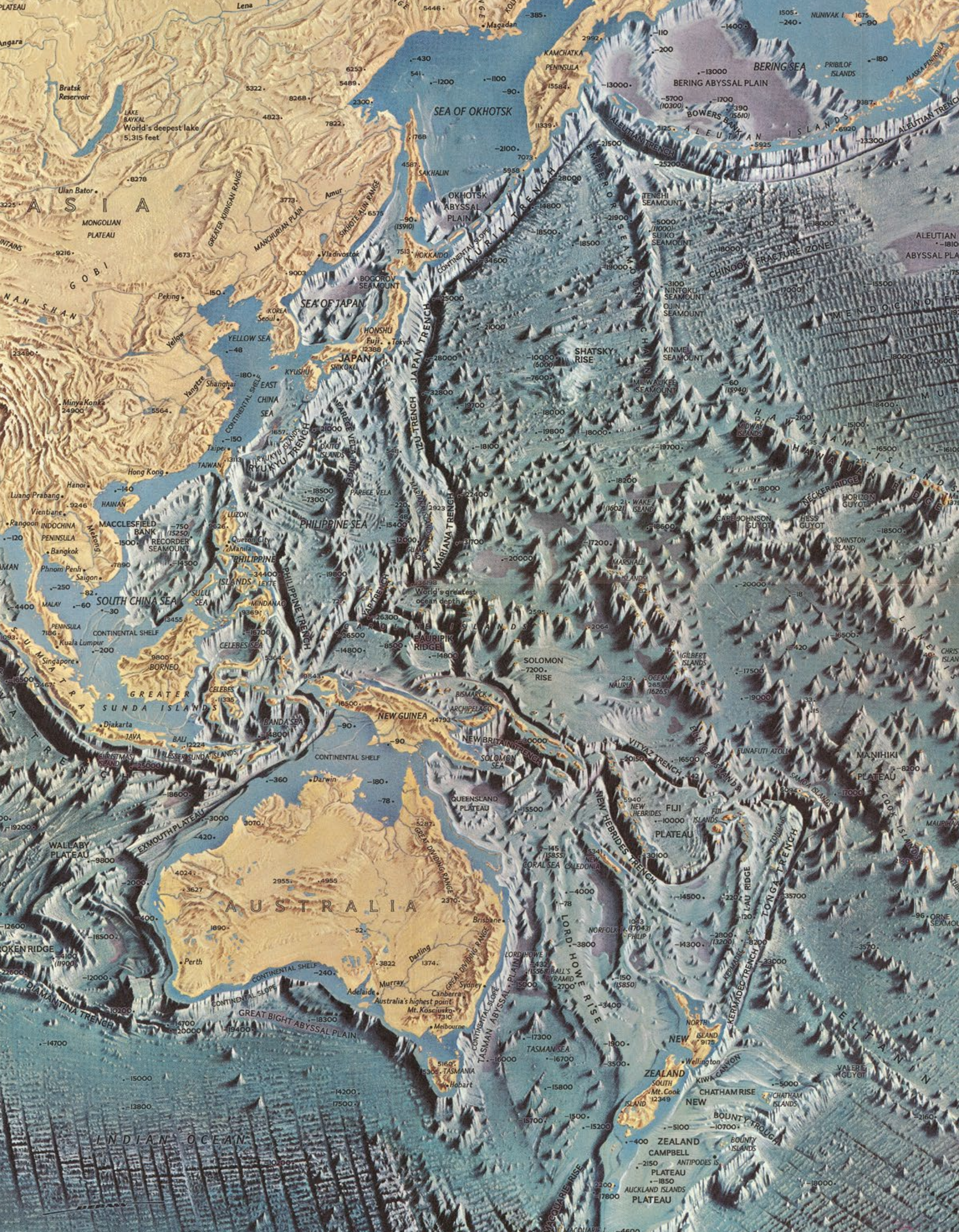
Dimensions
480 by 620mm (19 by 24.5 inches).

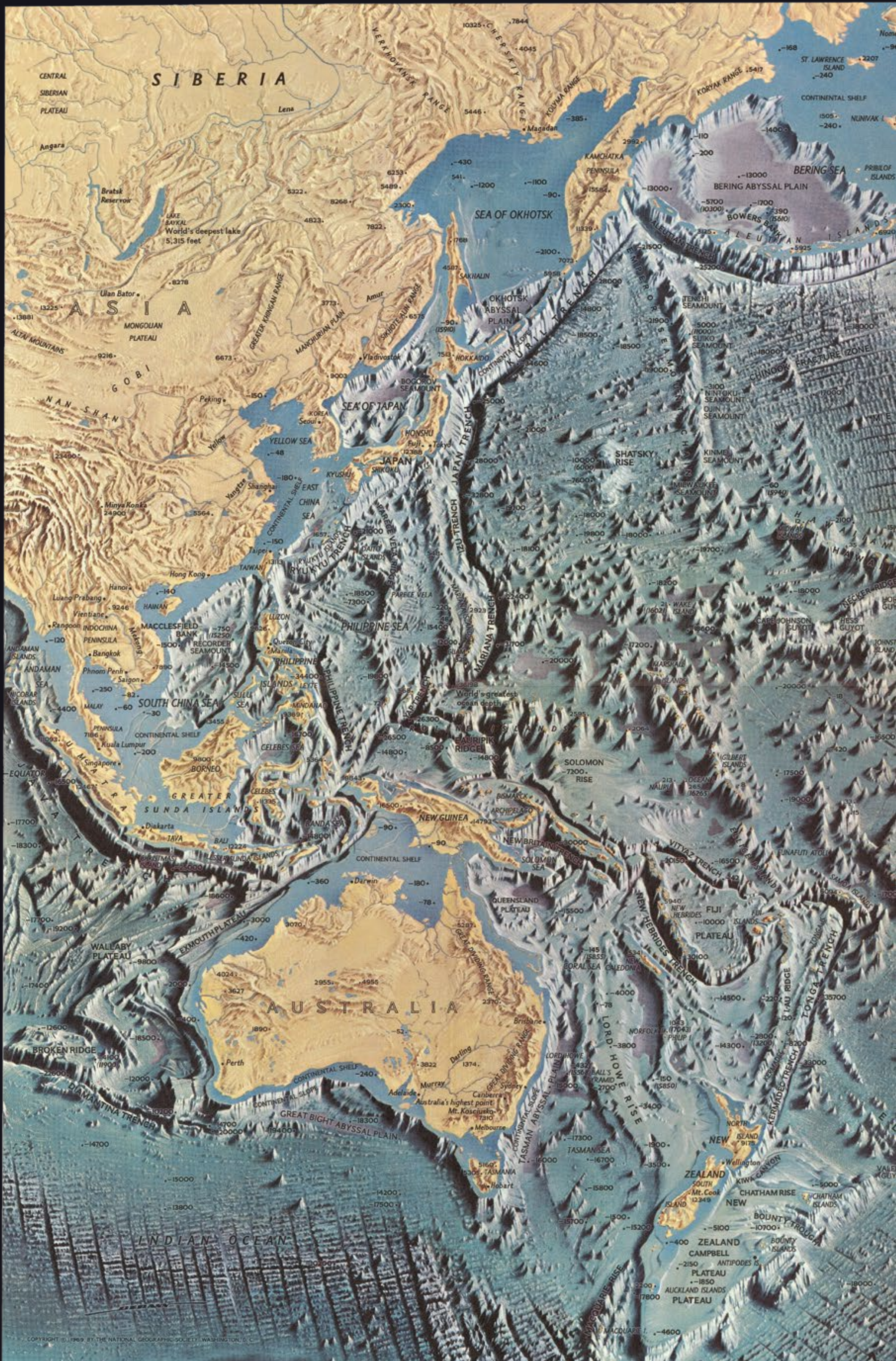
References
Rumsey 8817.

Supplemental map for volume 136, number 4, of the 'National Geographic Magazine', October 1969; one of 200 examples separately printed for Marie Tharp. While the map is based "on the bathymetric studies of Bruce C. Heezen of the Lamont-Doherty Geological Observatory and Marie Tharp of the U.S. Naval Oceanographic Office,... Compiled by Leo J. Boberschmidt", unlike the Tharp and Heezen 'Physiographic Diagram of the Western Pacific Ocean' of 1971, this map covers the entire Pacific Ocean, and a lot of the surrounding landmass too: the Americas, Eastern Europe, Asia and Australia.

The choice of Heinrich Berann (1915-1999) to paint this map was made by Tharp, who recognized the similarity of the ocean terrain to that of mountainous regions on land. She greatly admired the way that these were captured by Berann, who first caught the attention of the artistic world with his prize-winning panorama map of the newly opened 'Großglockner Hochalpenstraße' mountain pass in Austria in 1934. This was followed in 1937 by his famous depiction of the 'Jungfraubahn' mountain railroad in Switzerland. Between 1956 and 1998 he created the panoramic views of the snowcapped resorts for the Winter Olympics; the Alps; the Himalayas; and the floors of the world's oceans for Bruce Heezen and Tharp.

Provenance
Marie Tharp (1920-2006).


ASIA
Lena
Angara
Bratsk Reservoir
LAKE BAYKAL
World's deepest lake
5,315 feet
Ulan Bator
MONGOLIAN PLATEAU
GOBI
GREATER KHINGAN RANGE
MANCHURIAN PLAIN
Amur
SIKHOTE ALIN RANGE
Vladivostok
Peking
Yellow
KOREA
Seoul
YELLOW SEA
Yangtze
Shanghai
Minya Konka 24900
EAST CHINA SEA
Taipei
TAIWAN
Hong Kong
Hanoi
HAINAN
Luang Prabang
Vientiane
Rangoon
INDOCHINA PENINSULA
Mekong
Bangkok
Phnom Penh
Saigon
MACCLESFIELD BANK
RECORDER SEAMOUNT
SOUTH CHINA SEA
MALAY PENINSULA
Kuala Lumpur
Singapore
CONTINENTAL SHELF
SUMATRA
BORNEO
GREATER SUNDA ISLANDS
Djakarta
JAVA
BALI
LESSER SUNDA ISLANDS
CHRISTMAS ISLAND
JAVA TRENCH
CELEBES
CELEBES SEA
SULU SEA
MINDANAO
PHILIPPINE ISLANDS
Manila
Quezon City
LUZON
LEYTE
BANDA SEA
NEW GUINEA
CONTINENTAL SHELF
Darwin
EXMOUTH PLATEAU
WALLABY PLATEAU
AUSTRALIA
GREAT DIVIDING RANGE
Brisbane
Perth
Darling
Murray
Adelaide
Canberra
Sydney
Australia's highest point
Mt. Kosciusko
Melbourne
CONTINENTAL SHELF
CONTINENTAL SLOPE
GREAT BIGHT ABYSSAL PLAIN
DIAMANTINA TRENCH
BROKEN RIDGE
TASMANIA
Hobart
INDIAN OCEAN
SEA OF OKHOTSK
Magadan
KAMCHATKA PENINSULA
SAKHALIN
HOKKAIDO
OKHOTSK ABYSSAL PLAIN
CONTINENTAL SLOPE
KURIL TRENCH
BOGOROV SEAMOUNT
SEA OF JAPAN
HONSHU
Fuji 12388
Tokyo
JAPAN
SHIKOKU
KYUSHU
JAPAN TRENCH
IZU TRENCH
RYUKYU ISLANDS
RYUKYU TRENCH
DAITO ISLANDS
PARECE VELA RIDGE
PARECE VELA
PHILIPPINE SEA
PHILIPPINE TRENCH
MARIANA ISLANDS
MARIANA TRENCH
GUAM
World's greatest ocean depth
YAP TRENCH
CAROLINE ISLANDS
EAURIPIK RIDGE
BISMARCK ARCHIPELAGO
NEW BRITAIN TRENCH
SOLOMON SEA
SOLOMON RISE
QUEENSLAND PLATEAU
CORAL SEA
NEW CALEDONIA
NEW HEBRIDES
NEW HEBRIDES TRENCH
LORD HOWE RISE
NORFOLK I.
PHILIP
LORD HOWE
BALL'S PYRAMID
TASMAN ABYSSAL PLAIN
CONTINENTAL SLOPE
TASMAN SEA
NEW ZEALAND
NORTH ISLAND
Wellington
SOUTH ISLAND
Mt. Cook 12349
KIWA CANYON
CHATHAM RISE
CHATHAM ISLANDS
BOUNTY TROUGH
BOUNTY ISLANDS
NEW ZEALAND CAMPBELL PLATEAU
ANTIPODES IS.
AUCKLAND ISLANDS PLATEAU
MACQUARIE RISE
BERING SEA
BERING ABYSSAL PLAIN
BOWERS BANK
PRIBILOF ISLANDS
NUNIVAK I.
ALASKA PENINSULA
ALEUTIAN ISLANDS
ALEUTIAN TRENCH
ALEUTIAN ABYSSAL PLAIN
EMPEROR SEAMOUNT CHAIN
TENCHI SEAMOUNT
SUIKO SEAMOUNT
NINTOKU SEAMOUNT
OJIN SEAMOUNT
KINME SEAMOUNT
MILWAUKEE SEAMOUNT
CHINOOK FRACTURE ZONE
MENDOCINO F
SHATSKY RISE
HAWAIIAN RIDGE
HAWAIIAN ISLANDS
MIDWAY ISLANDS
NECKER RIDGE
HORIZON GUYOT
HESS GUYOT
CAPE JOHNSON GUYOT
JOHNSTON ISLAND
WAKE ISLAND
MARSHALL ISLANDS
LINE ISLANDS
CHRISTMAS ISLAND
GILBERT ISLANDS
NAURU
OCEAN
ELLICE ISLANDS
FUNAFUTI ATOLL
VITYAZ TRENCH
FIJI PLATEAU
FIJI ISLANDS
SAMOA ISLANDS
MANIHIKI PLATEAU
COOK ISLANDS
TONGA ISLANDS
TONGA TRENCH
LAU RIDGE
KERMADEC ISLANDS
KERMADEC TRENCH
ELTANIN
VALERIE GUYOT
ORNE SEAMOUNT
MAUPIHAA


SIBERIA
CENTRAL SIBERIAN PLATEAU
Angara
Lena
Bratsk Reservoir
LAKE BAIKAL World's deepest lake 5,315 feet
VERKHOYANSK RANGE
CHERSKIY RANGE
KOLYMA RANGE
KORYAK RANGE
Magadan
KAMCHATKA PENINSULA
SEA OF OKHOTSK
SAKHALIN
OKHOTSK ABYSSAL PLAIN
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BERING SEA
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KURIL TRENCH
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CHINOOK FRACTURE ZONE
NINTOKU SEAMOUNT
OJIN SEAMOUNT
KINMEI SEAMOUNT
MILWAUKEE SEAMOUNT
Ulan Bator
ASIA
MONGOLIAN PLATEAU
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Vladivostok
HOKKAIDO
BOGOROV SEAMOUNT
SEA OF JAPAN
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HONSHU
Fuji 12388
Tokyo
JAPAN
SHIKOKU
KYUSHU
YELLOW SEA
Yellow
Yangtze
Shanghai
EAST CHINA SEA
Minya Konka 24900
JAPAN TRENCH
IZU TRENCH
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RYUKYU TRENCH
PALAU-VELA RIDGE
PAREСE VELA
Taipei
TAIWAN
Hong Kong
Hanoi
HAINAN
Luang Prabang
Vientiane
Rangoon
INDOCHINA PENINSULA
Mekong
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Phnom Penh
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Quezon City
Manila
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ANDAMAN ISLANDS
ANDAMAN SEA
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Kuala Lumpur
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BANDA SEA
NEW GUINEA
BISMARCK ARCHIPELAGO
NEW BRITAIN TRENCH
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EAURIPIK RIDGE
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OCEAN
GILBERT ISLANDS
VITYAZ TRENCH
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FIJI ISLANDS
FIJI PLATEAU
NEW HEBRIDES
NEW HEBRIDES TRENCH
TONGA TRENCH
LAU RIDGE
KERMADEC TRENCH
Darwin
QUEENSLAND PLATEAU
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NEW CALEDONIA
WALLABY PLATEAU
EXMOUTH PLATEAU
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Murray
Adelaide
Canberra
Sydney
Australia's highest point Mt. Kosciusko 7310
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CONTINENTAL SHELF
CONTINENTAL SLOPE
GREAT BIGHT ABYSSAL PLAIN
BROKEN RIDGE
DIAMANTINA TRENCH
TASMAN ABYSSAL PLAIN
LORD HOWE ISLAND
BALL'S PYRAMID
LORD HOWE RISE
TASMAN SEA
TASMANIA
Hobart
NEW ZEALAND
NORTH ISLAND
Wellington
SOUTH ISLAND
Mt. Cook 12349
KIWA CANYON
CHATHAM RISE
CHATHAM ISLANDS
BOUNTY TROUGH
BOUNTY ISLANDS
ANTIPODES IS.
CAMPBELL PLATEAU
AUCKLAND ISLANDS
MACQUARIE RISE
MACQUARIE I.
INDIAN OCEAN

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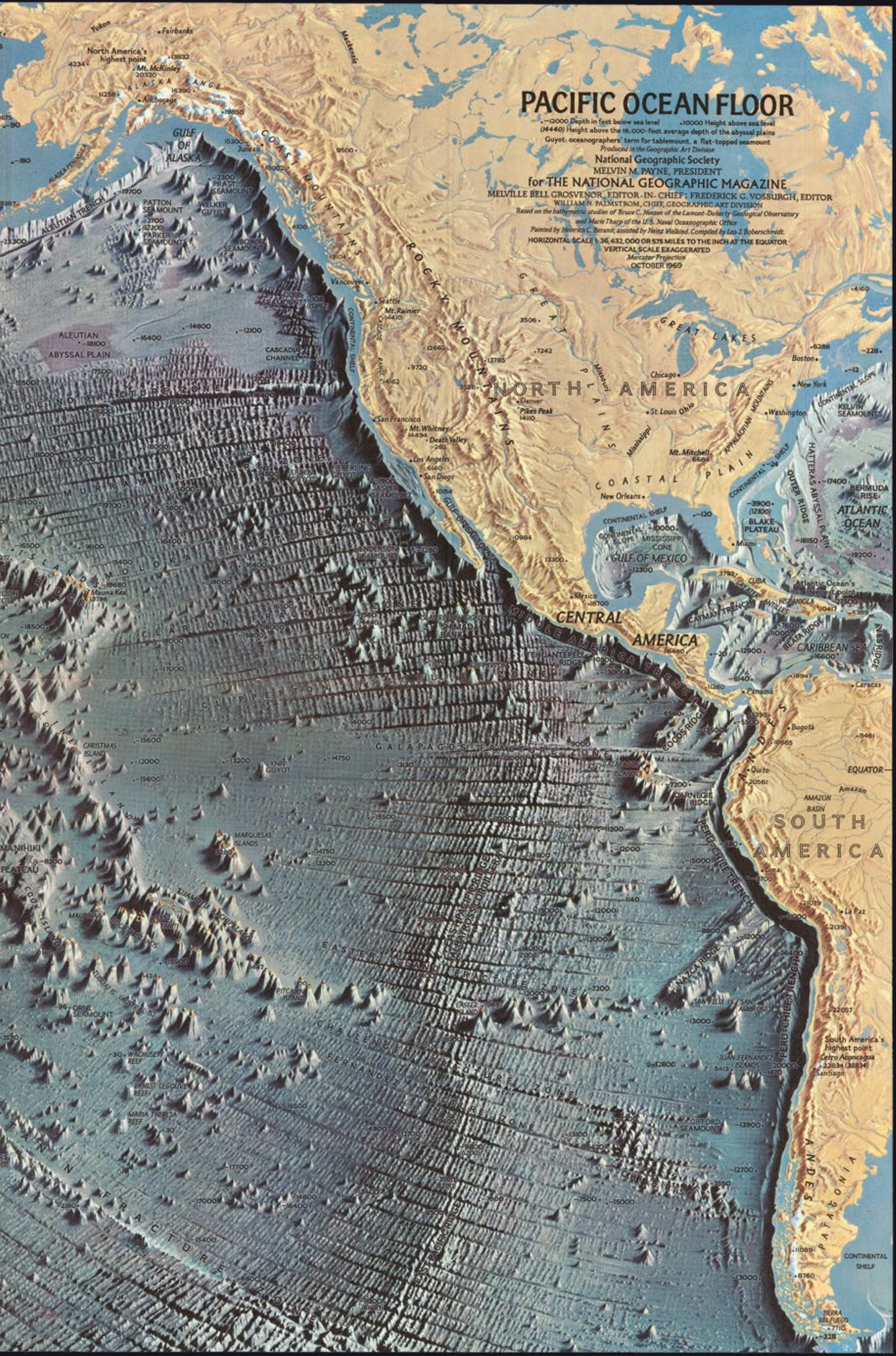


PACIFIC OCEAN FLOOR

•−12000 Depth in feet below sea level •10000 Height above sea level
(14440) Height above the 16,000-foot average depth of the abyssal plains
Guyot: oceanographers' term for tablemount, a flat-topped seamount
Produced in the Geographic Art Division
National Geographic Society
MELVIN M. PAYNE, PRESIDENT
for THE NATIONAL GEOGRAPHIC MAGAZINE
MELVILLE BELL GROSVENOR, EDITOR-IN-CHIEF; FREDERICK G. VOSBURGH, EDITOR
WILLIAM N. PALMSTROM, CHIEF, GEOGRAPHIC ART DIVISION
Based on the bathymetric studies of Bruce C. Heezen of the Lamont-Doherty Geological Observatory
and Marie Tharp of the U.S. Naval Oceanographic Office
Painted by Heinrich C. Berann, assisted by Heinz Vielkind. Compiled by Leo J. Boberschmidt.
HORIZONTAL SCALE 1:36,432,000 OR 575 MILES TO THE INCH AT THE EQUATOR
VERTICAL SCALE EXAGGERATED
Mercator Projection
OCTOBER 1969

Yukon
Fairbanks
North America's highest point
Mt. McKinley 20320
ALASKA RANGE
Anchorage
GULF OF ALASKA
ALASKA PENINSULA
ALEUTIAN TRENCH
PATTON SEAMOUNT
PRATT SEAMOUNT
WELKER GUYOT
PARKER SEAMOUNT
BOWIE SEAMOUNT
Juneau
COAST MOUNTAINS
ROCKY MOUNTAINS
Mackenzie
Vancouver
Seattle
Mt. Rainier 14410
CASCADE RANGE
CONTINENTAL SHELF
ALEUTIAN ABYSSAL PLAIN
CASCADIA CHANNEL
GREAT PLAINS
GREAT LAKES
NORTH AMERICA
Missouri
Chicago
St. Louis
Ohio
Mississippi
Boston
New York
Washington
Denver
Pikes Peak 14110
San Francisco
Mt. Whitney 14494
Death Valley −282
Los Angeles
San Diego
APPALACHIAN MOUNTAINS
Mt. Mitchell 6684
COASTAL PLAIN
New Orleans
Miami
CONTINENTAL SLOPE
KELVIN SEAMOUNTS
HATTERAS ABYSSAL PLAIN
OUTER RIDGE
BERMUDA RISE
ATLANTIC OCEAN
BLAKE PLATEAU
MURRAY FRACTURE ZONE
MOLOKAI FRACTURE ZONE
CLARION FRACTURE ZONE
CLIPPERTON FRACTURE ZONE
GALAPAGOS FRACTURE ZONE
EASTER ISLAND FRACTURE ZONE
CHALLENGER FRACTURE ZONE
FERNANDEZ FRACTURE ZONE
GULF OF CALIFORNIA
GULF OF MEXICO
MISSISSIPPI CONE
CUBA
CAYMAN TRENCH
HISPANIOLA
Atlantic Ocean's deepest point
BEATA RIDGE
CARIBBEAN SEA
Mexico
CENTRAL AMERICA
MIDDLE AMERICA TRENCH
TEHUANTEPEC RIDGE
SHIMADA BANK
Panama
Caracas
Bogotá
COCOS RIDGE
Quito
EQUATOR
Amazon
AMAZON BASIN
SOUTH AMERICA
CARNEGIE RIDGE
PERU-CHILE TRENCH
Lima
La Paz
NAZCA RIDGE
SAN FELIX
SAN AMBROSIO
JUAN FERNANDEZ ISLANDS
South America's highest point
Cerro Aconcagua 22834 (38834)
Santiago
GIFFORD SEAMOUNT
ANDES
PATAGONIA
TIERRA DEL FUEGO
CHRISTMAS ISLAND
LINE ISLANDS
LYNN GUYOT
MARQUESAS ISLANDS
MANIHIKI PLATEAU
COOK ISLANDS
TUAMOTU ARCHIPELAGO
PITCAIRN ISLAND
EASTER ISLAND
ORNE SEAMOUNT
WACHUSETT REEF
ERNEST LEGOUVE REEF
MARIA THERESA REEF
EAST PACIFIC RISE
ALBATROSS CORDILLERA
Mauna Kea 13796
HAWAIIAN ISLANDS

Original printer's blocks after drawings by Tharp

D **THARP, Marie; Bruce C. HEEZEN; and G. Leonard JOHNSON**

Printer's blocks to illustrate the 'Mediterranean Undercurrent and Microphysiography West of Gibraltar', in the 'Bulletin de l'Institut Oceanographique', volume 67, Issue 1382.

Publication
[Paris, Musee Oceanographique, 1969].

Description
25 wood and zinc printer's blocks.

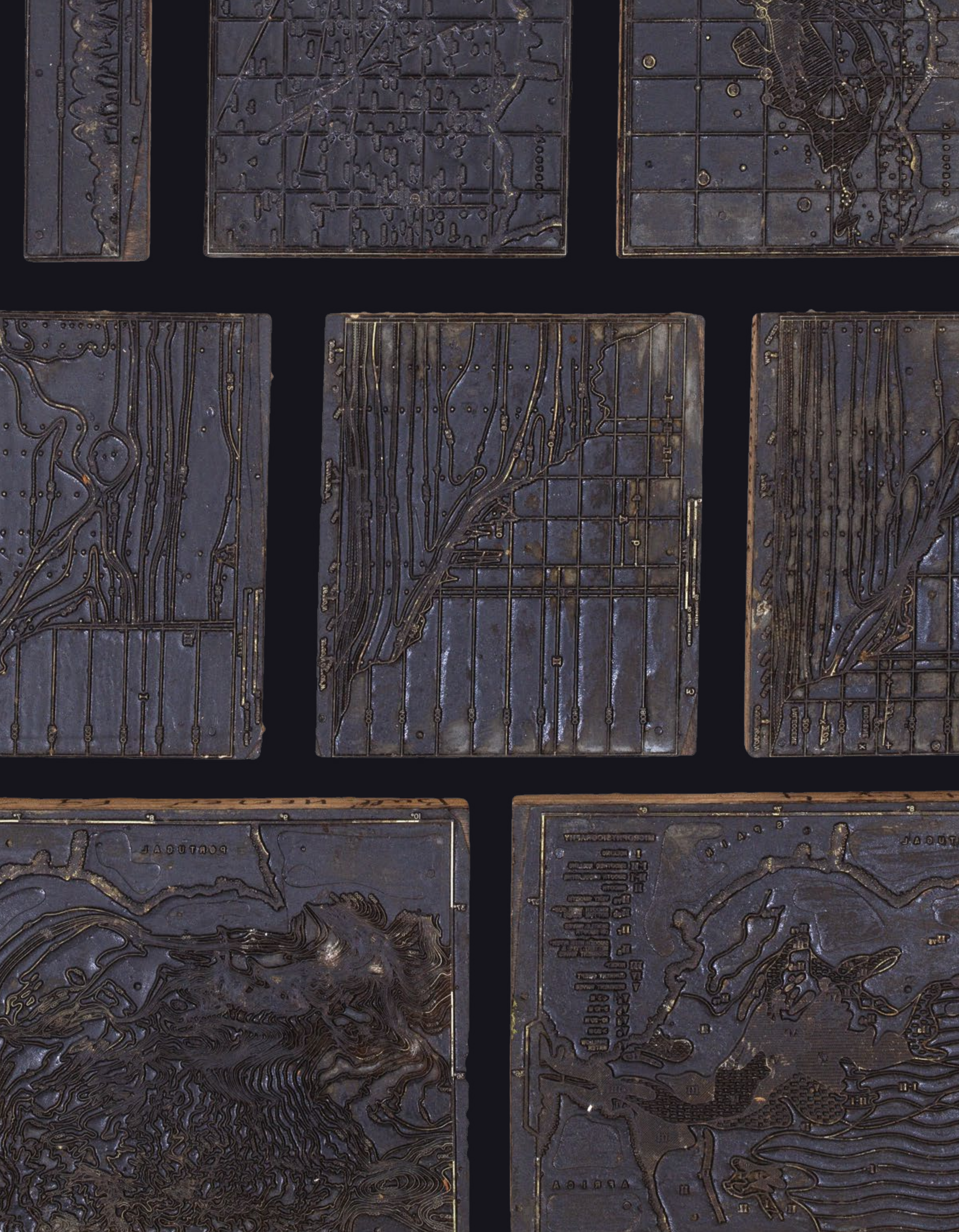
Dimensions
Various sizes.

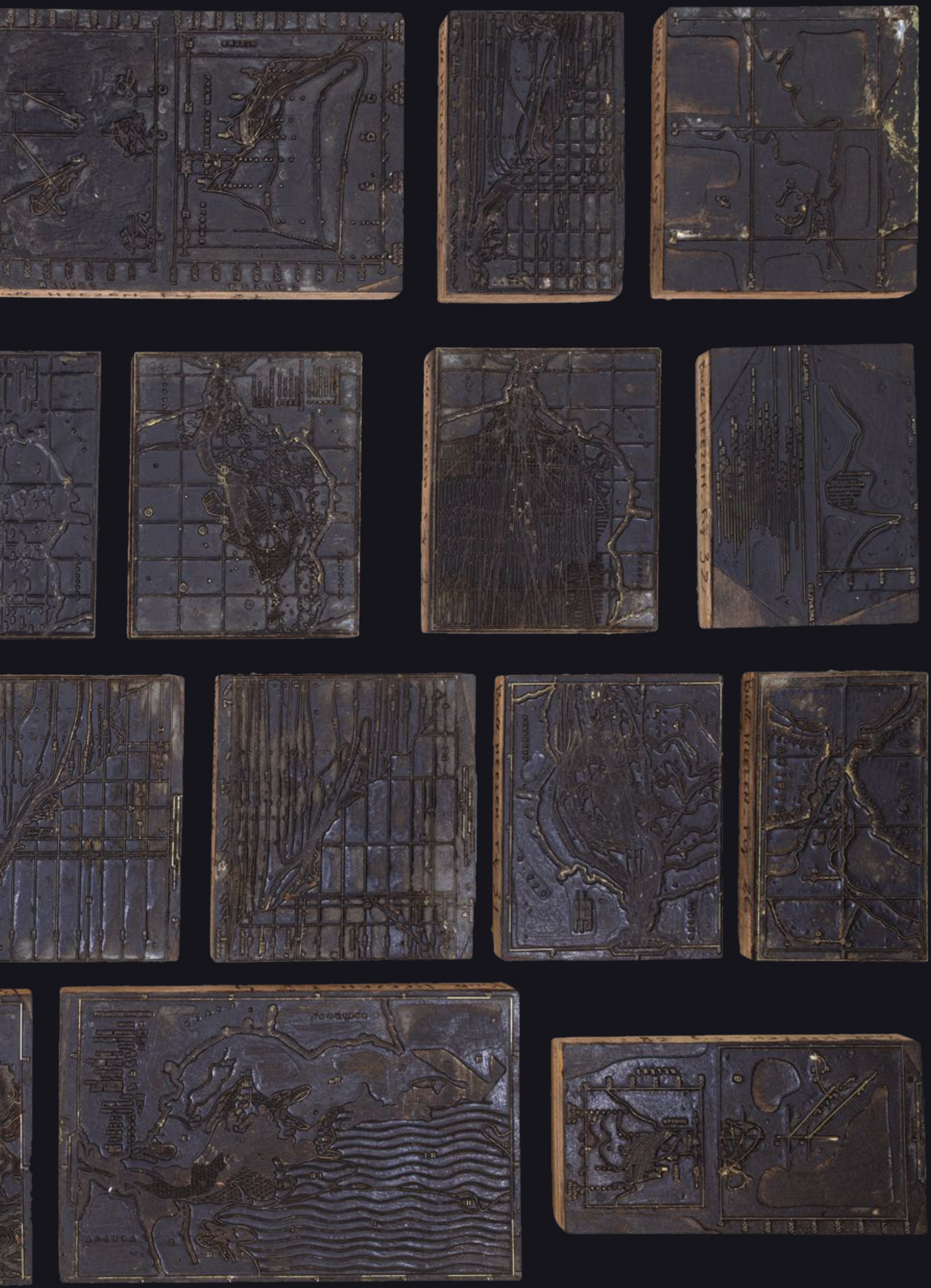
References
Grant Gorge Buff 'Seismic Oceanography: A New Tool to Characterize Physical Oceanographic Structures and Processes' Barcelona, 2011; Robert S. Dietz, U.S. Coast and Geodetic Survey, 'Geological Society of America Charts', in 'Science', May 1965, Vol. 148, Issue 3671, pp. 809; Doel, Levin, Marker, 'Extending modern cartography to the ocean depths: military patronage, Cold War priorities, and the Heezen–Tharp mapping project, 1952–1959', 2006; Tharp, 'Connect the Dots: Mapping the Seafloor and Discovering the Mid-ocean Ridge', Chapter 2 in: Lamont-Doherty Earth Observatory of Columbia 'Twelve Perspectives on the First Fifty Years 1949-1999', Edited by Laurence Lippsett.

Heezen and Johnson's paper, which focused on observing the flow and mixing of waters between the Mediterranean and the Atlantic Ocean, showed how the process was affected by differences in temperature, velocity, and salinity, over different ocean floor terrain. From their work, extrapolations can and have been made about how the process of the circulation of water throughout the world's oceans might work, with profound implications for climate. These woodblocks, created from drawings by Marie Tharp, illustrate all factors taken into consideration in the observed area, but place a particular emphasis on the effect of the terrain of the sea/ocean floor on the mixing process, which was Heezen and Tharp's principal interest.

Although the energy needed to circulate the world's ocean waters is mainly provided by tides and wind, the effects of that are transformed into internal wave energy, "cascading through a range of smaller scales leading finally into turbulence and molecular dissipation. Water masses in the ocean are stratified and often separated by relatively thin layers with strong gradients in temperature and/or salinity across which heat and mass transfer occur in order to maintain global circulation and stratification. However, these processes are difficult to observe in practice. Below a few meters, the ocean is opaque to light, and thus to direct optical observations of deep processes" (Buff).

Diagrams present: 1,2,3,4,...7,...10,...14,...16-33





Australia and the Pacific Ocean floor

E **THARP, Marie; and Bruce C. HEEZEN**

Physiographic Diagram of the Western Pacific Ocean.

Publication
Boulder, Colorado, The Geological Society of America, Inc., 1971.

Description
Chromolithographed map, some fraying to edges.

Dimensions
1040 by 1320mm (41 by 52 inches).

References
Robert S. Dietz, U.S. Coast and Geodetic Survey, 'Geological Society of America Charts', in 'Science', May 1965, Vol. 148, Issue 3671, pp. 809; Doel, Levin, Marker, 'Extending modern cartography to the ocean depths: military patronage, Cold War priorities, and the Heezen–Tharp mapping project, 1952–1959', 2006; Tharp, 'Connect the Dots: Mapping the Seafloor and Discovering the Mid-ocean Ridge', Chapter 2 in: Lamont-Doherty Earth Observatory of Columbia 'Twelve Perspectives on the First Fifty Years 1949-1999', Edited by Laurence Lippsett.

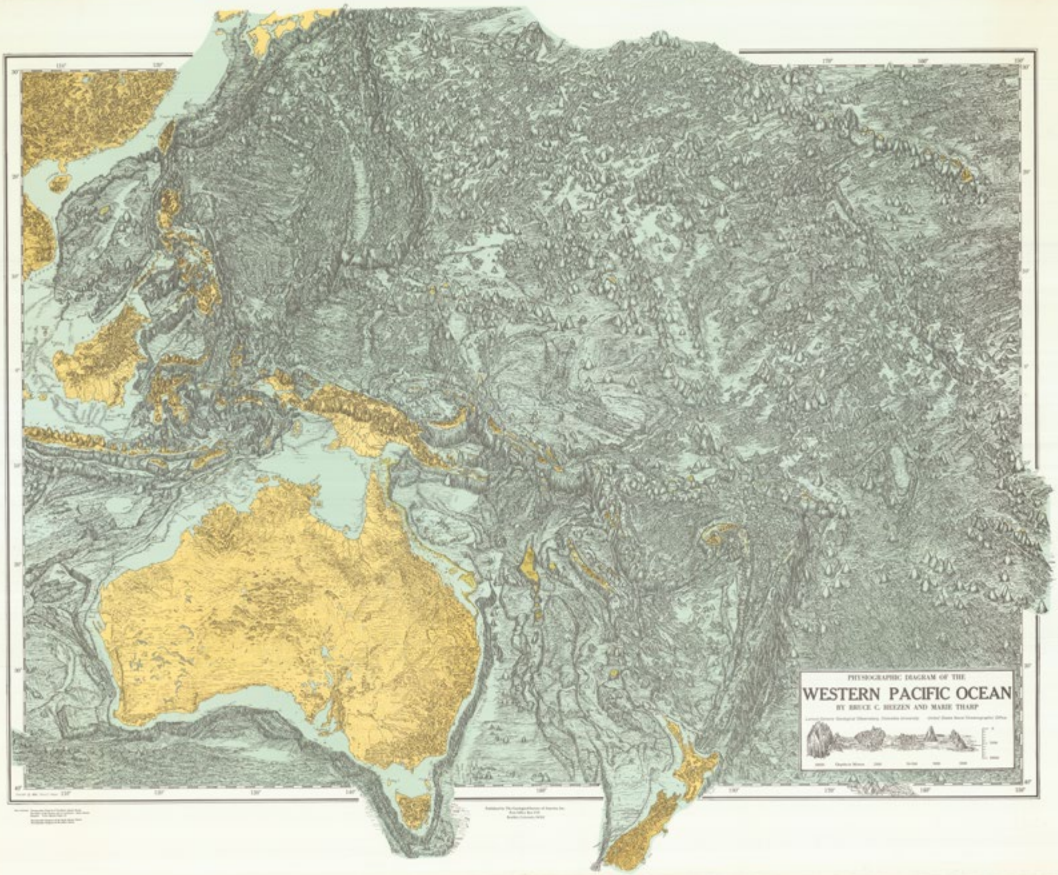
"The Pacific was a hard map. You know, different ocean. And so we never did the whole ocean. Neither us nor the Geographic [Survey] did the whole thing. We did the West Central part" (Tharp).

The resulting map still covers a vast area, showing for the first time the general geomorphology of the western Pacific extending from the Indian Ocean, to encompass the whole of Australia, the islands of the Southeast Asian archipelago; north to the Philippines, the southeastern coast of China, and the southern islands of Japan; and east to New Zealand and beyond, to Samoa and the Hawaiian Islands.

The map is based on information collected by a newly invented Precision Depth Recorder installed on the 'Vema', Scripps Institution of Oceanography, early Dutch soundings from the 'Snellins', and the U.S. Navy vessel 'Glacier' operating out of San Francisco, laid over US Navy master bathymetric sheets and nineteen other contributing countries. Unlike flat contour maps, physiographic maps show the terrain as it would look from a low-flying plane. It captures the seafloor's "many textured variations, contrasting the smoothness of the abyssal plains, for example, with the ruggedness of the mountains along the ridges" (Tharp). As detailed contour maps of the ocean floor were classified by the U.S. Navy, physiographic diagrams enabled Tharp and Heezen to publish their data, and to reach a wider audience who could visualize the seafloor, as a result.

This is the fourth in Tharp and Heezen's series of physiographic diagrams of the world's ocean floors, it is preceded by those of the North and South Atlantic, and the Indian Ocean. Their first map was published as an accompaniment to the Bell Telephone System's 'Technical Journal' (1957), followed by a Geological Society of America edition in 1959.

Provenance
Marie Tharp (1920-2006)



PHYSIOGRAPHIC DIAGRAM OF THE

WESTERN PACIFIC OCEAN

BY BRUCE C. HEEZEN AND MARIE THARP

110°
120°
130°
140°
160°
170°
180°
170°
190°
150°
30°
40°

Tharp and Heezen's first map of the Arctic Ocean floor

F **THARP, Marie; Bruce C. HEEZEN; and Heinrich C. BERANN**

Arctic Ocean Floor.

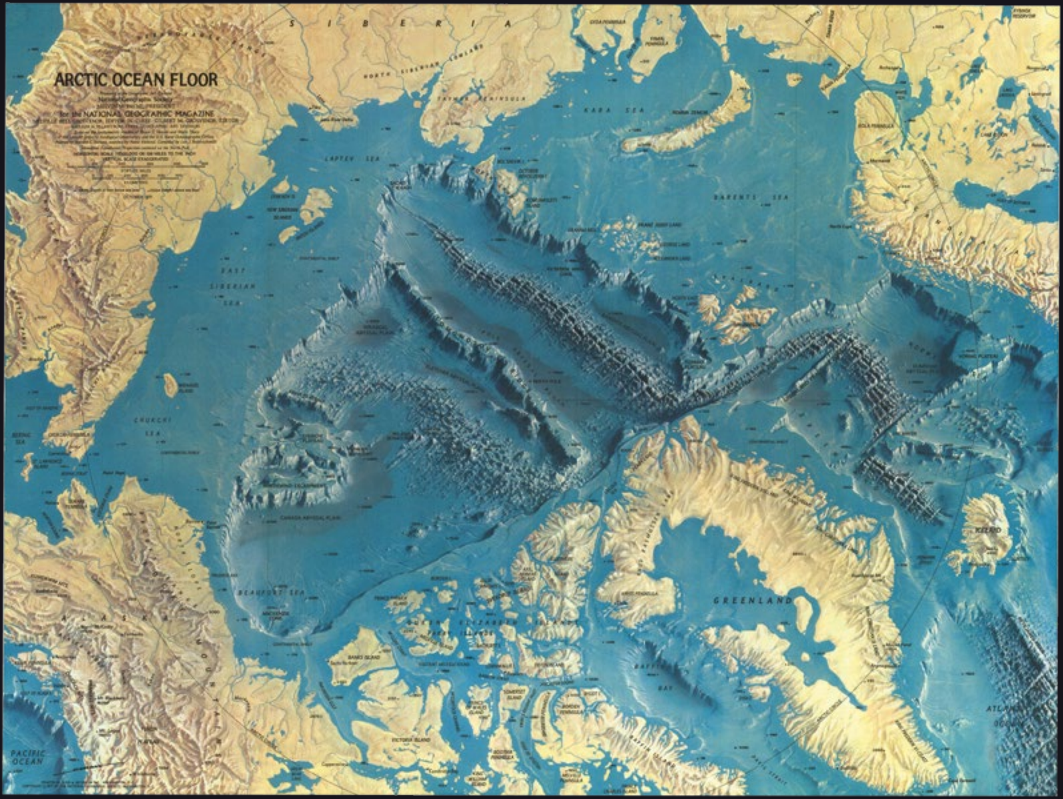
Publication
[Washington DC], Produced in the Geographic Art Division for National Geographic Magazine, October 1971.

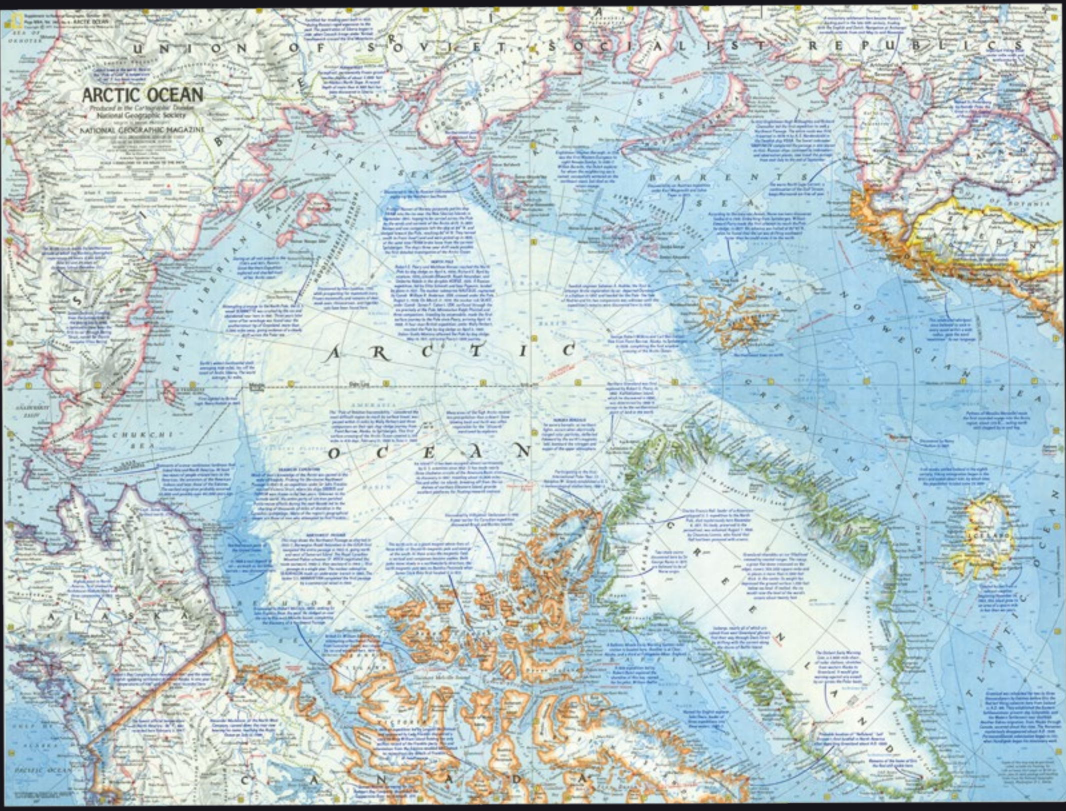
Description
Folding colour printed map, printed on both sides.

Dimensions
470 by 620mm (18.5 by 24.5 inches).

Supplemental map for volume 140, number 4, of the 'National Geographic Magazine', October 1971; one of 100 examples separately printed for Marie Tharp. The map is based "on the bathymetric studies of Bruce C. Heezen of the Lamont-Doherty Geological Observatory and Marie Tharp of the U.S. Naval Oceanographic Office,... Compiled by Leo J. Boberschmidt", and encompasses the entire Arctic Circle, including landmass. In an interview with the American Institute of Physics in 1995, Tharp emphasised that they were largely dependent on Russian data for the details of the map.

Provenance
Marie Tharp (1920-2006)


ARCTIC OCEAN FLOOR
National Geographic Society
for the NATIONAL GEOGRAPHIC MAGAZINE
SIBERIA
KARA SEA
LAPTEV SEA
BARENTS SEA
EAST SIBERIAN SEA
CHUKCHI SEA
BEAUFORT SEA
GREENLAND
ICELAND
BAFFIN BAY
VICTORIA ISLAND
PACIFIC OCEAN
ATLANTIC


ARCTIC OCEAN
Produced in the Cartographic Division
National Geographic Society
NATIONAL GEOGRAPHIC MAGAZINE
UNION OF SOVIET SOCIALIST REPUBLICS
SIBERIA
SEA OF OKHOTSK
LAPTEV SEA
KARA SEA
BARENTS SEA
EAST SIBERIAN SEA
CHUKCHI SEA
ARCTIC OCEAN
NORWEGIAN SEA
GREENLAND SEA
GREENLAND
ICELAND
ALASKA
BEAUFORT
CANADA
ATLANTIC OCEAN
PACIFIC OCEAN

First printing of the first map to show the entirety of the world's ocean floors

G **THARP, Marie; Bruce C. HEEZEN; and Tanguy DE REMUR**

The Floor of the Oceans. Based on Bathymetic studies by Bruce C. Heezen and Marie Tharp of the Lamont Doherty Geological Observatory Columbia University Palisades, New York, 10964. Supported by the United States Navy Office of Naval Research.

Publication
Paris, Editions Pierre Charron, 1976.

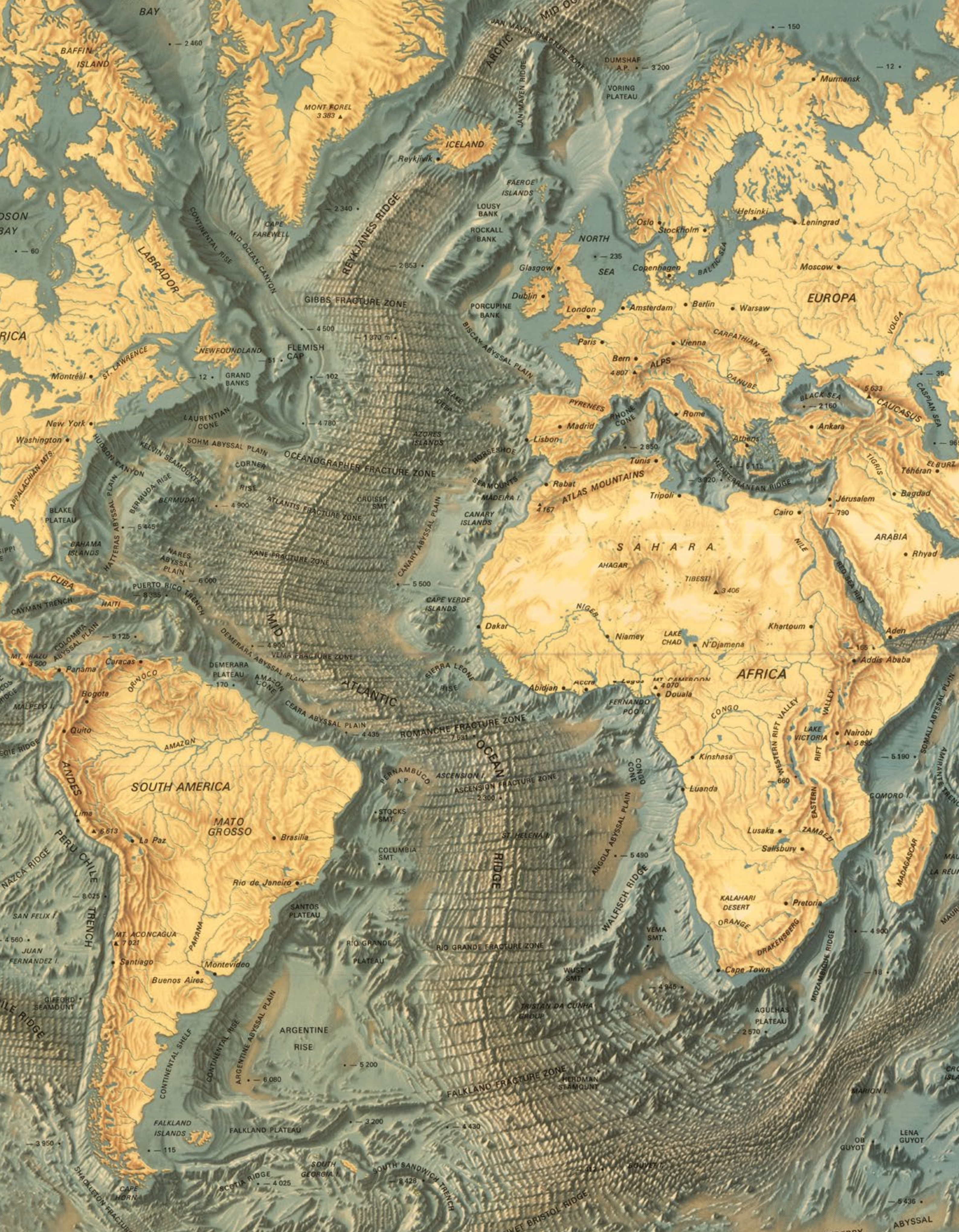
Description
Chromolithographed wall map.

Dimensions
115 by 662mm (4.5 by 26 inches)

First issue of this, literally, ground-breaking, map of the entirety of the world's ocean floors. Published in 1976 to commemorate the 30th Anniversary of the founding of the Department of the Navy Office of Naval Research, in August of 1946, based on bathymetric data collected from worldwide sources and compiled by Bruce C. Heezen and Marie Tharp of Lamont Doherty Geological Observatory, Columbia University.

This map, of all of the world's ocean floors, represents the culmination of many decades of collaborative work between Tharp and Heezen, which made an astonishingly visual and important contribution to the understanding of plate tectonics.

The artist, of the map, Tanguy de Remur had famously illustrated Xavier Le Pichon's theory of plate tectonics in his article 'Sea-floor spreading and continental drift', in the 'Journal of Geophysical Research', 1968. Pichon was the first to "develop a global model based on quantitative analysis. The motions of rigid plates are defined by giving outlines of about a dozen plates, the geographic location of their pole of rotation and the associated angular velocities. The principles of this approach were presented by W.J. Morgan and D.P. McKenzie & R.L. Parker in 1967. Using their methodology, Xavier Le Pichon constructed a global map of the motions related to the six major plates in 1968. This became the basis for a better understanding of the distribution of earthquakes and for the large scale reconstruction of the configuration of continents and ocean basins in the past. His book of 1973, 'Plate Tectonics', with Jean Bonnin and Jean Francheteau, became the standard reference work on the Theory of Plate Tectonics for many years.


BAY
— 2 460
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MID OCEAN
JAN MAYEN FRACTURE ZONE
ARCTIC
JAN MAYEN RIDGE
DUMSHAF A.P. — 3 200
VORING PLATEAU
— 150
Murmansk
— 12
MONT FOREL 3 383
ICELAND
Reykjavik
FAEROE ISLANDS
LOUSY BANK
ROCKALL BANK
HUDSON BAY
— 60
CONTINENTAL RISE
MID OCEAN CANYON
CAPE FAREWELL
— 2 340
REYKJANES RIDGE
— 2 853
LABRADOR
NORTH SEA
— 235
Glasgow
Dublin
Oslo
Stockholm
Helsinki
Leningrad
Copenhagen
BALTIC SEA
Moscow
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— 1 370 m
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NEWFOUNDLAND
— 51
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VOLGA
Montréal
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GRAND BANKS
— 162
Bern
4 807
ALPS
DANUBE
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PYRENEES
BLACK SEA
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5 633
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CASPIAN SEA
LAURENTIAN CONE
— 4 780
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RHONE CONE
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SOHM ABYSSAL PLAIN
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Athens
— 965
APPALACHIAN MTS.
HUDSON CANYON
KELVIN SEAMOUNTS
CORNER RISE
OCEANOGRAPHER FRACTURE ZONE
HORSESHOE SEAMOUNTS
Tunis
— 5 115
TIGRIS
ELBURZ
Téhéran
Rabat
ATLAS MOUNTAINS
— 3 320
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BERMUDA RISE
BERMUDA I.
— 4 900
ATLANTIS FRACTURE ZONE
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Tripoli
Jérusalem
Bagdad
BLAKE PLATEAU
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Cairo
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— 5 445
CANARY ISLANDS
CANARY ABYSSAL PLAIN
HATTERAS ABYSSAL PLAIN
S A H A R A
ARABIA
NILE
MISSISSIPPI
BAHAMA ISLANDS
NARES ABYSSAL PLAIN
KANE FRACTURE ZONE
AHAGAR
Rhyad
RED SEA RIFT
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TIBESTI
CUBA
— 5 500
3 406
PUERTO RICO TRENCH
— 8 385
CAPE VERDE ISLANDS
CAYMAN TRENCH
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Dakar
Khartoum
Aden
COLOMBIA ABYSSAL PLAIN
— 5 125
DEMERARA ABYSSAL PLAIN
— 4 900
VEMA FRACTURE ZONE
Niamey
LAKE CHAD
N'Djamena
— 165
MT. IRAZU 3 500
Caracas
Panama
DEMERARA PLATEAU
SIERRA LEONE RISE
Addis Ababa
ORINOCO
AMAZON CONE
ATLANTIC
Abidjan
Accra
Lagos
MT. CAMEROON 4 070
Douala
AFRICA
COCOS RIDGE
Bogota
— 170
FERNANDO POO I.
MALPELO I.
CEARA ABYSSAL PLAIN
CONGO
WESTERN RIFT VALLEY
VALLEY
SOMALI ABYSSAL PLAIN
Quito
— 4 435
ROMANCHE FRACTURE ZONE
— 7 631
LAKE VICTORIA
Nairobi
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RIFT
CARNEGIE RIDGE
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OCEAN
CONGO CONE
Kinshasa
— 5 190
AMIRANTE TRENCH
ANDES
PERNAMBUCO A.P.
ASCENSION I.
ASCENSION FRACTURE ZONE
Luanda
— 660
SOUTH AMERICA
— 2 300
EASTERN
COMORO I.
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MATO GROSSO
Brasilia
ST. HELENA I.
ANGOLA ABYSSAL PLAIN
Lusaka
ZAMBEZI
6 613
La Paz
Salisbury
MADAGASCAR
PERU CHILE TRENCH
COLUMBIA SMT.
RIDGE
— 5 490
MAURITIUS
LA RÉUNION
NAZCA RIDGE
Rio de Janeiro
WALFISCH RIDGE
— 8 025
KALAHARI DESERT
Pretoria
SAN FELIX I.
SANTOS PLATEAU
MAURITIUS TRENCH
TRENCH
ORANGE
DRAKENSBERG
— 4 900
MT. ACONCAGUA 7 021
VEMA SMT.
— 4 560
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RIO GRANDE PLATEAU
RIO GRANDE FRACTURE ZONE
MOZAMBIQUE RIDGE
JUAN FERNANDEZ I.
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Montevideo
WUST SMT.
Cape Town
— 18
Buenos Aires
— 4 945
GIFFORD SEAMOUNT
TRISTAN DA CUNHA GROUP
AGULHAS PLATEAU
CHILE RIDGE
ARGENTINE ABYSSAL PLAIN
CONTINENTAL RISE
ARGENTINE RISE
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CONTINENTAL SHELF
— 5 200
CROZET ISLANDS
— 6 080
FALKLAND FRACTURE ZONE
HERDMAN SEAMOUNT
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— 3 950
— 115
LENA GUYOT
OB GUYOT
SOUTH GEORGIA I.
SOUTH SANDWICH TRENCH
BOUVET I.
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SCOTIA RIDGE
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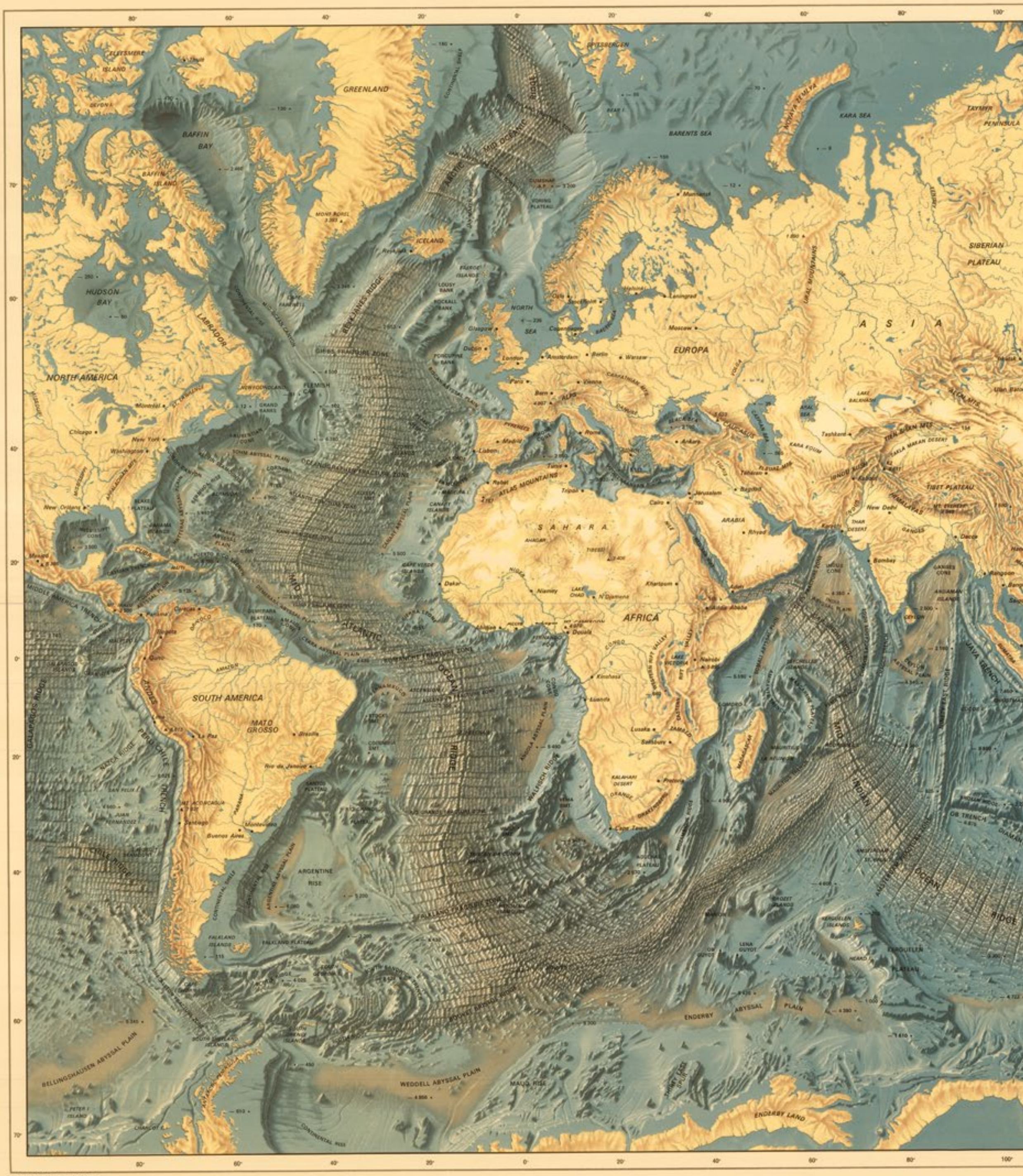
CAPE HORN
SHACKLETON FRACTURE
BOUVET BRISTOL RIDGE
— 5 436
ABYSSAL



GREENLAND
BAFFIN BAY
BAFFIN ISLAND
ELLESMERE ISLAND
HUDSON BAY
LABRADOR
NORTH AMERICA
ICELAND
REYKJANES RIDGE
NORTH SEA
BARENTS SEA
KARA SEA
NOVAYA ZEMLYA
URAL MOUNTAINS
SIBERIAN PLATEAU
TAYMYR PENINSULA
EUROPA
A S I A
TIBET PLATEAU
S A H A R A
ATLAS MOUNTAINS
ARABIA
AFRICA
SOUTH AMERICA
MATO GROSSO
ANDES
PERU-CHILE TRENCH
ARGENTINE RISE
FALKLAND ISLANDS
FALKLAND PLATEAU
MID ATLANTIC RIDGE
MID INDIAN OCEAN RIDGE
JAVA TRENCH
MADAGASCAR
KERGUELEN PLATEAU
ENDERBY ABYSSAL PLAIN
ENDERBY LAND
WEDDELL ABYSSAL PLAIN
MAUD RISE
BELLINGSHAUSEN ABYSSAL PLAIN
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GALAPAGOS RIDGE
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Painted by Tanguy de Rémur.

THE FLOOR O

Based on Bat

Bruce C. Heeze

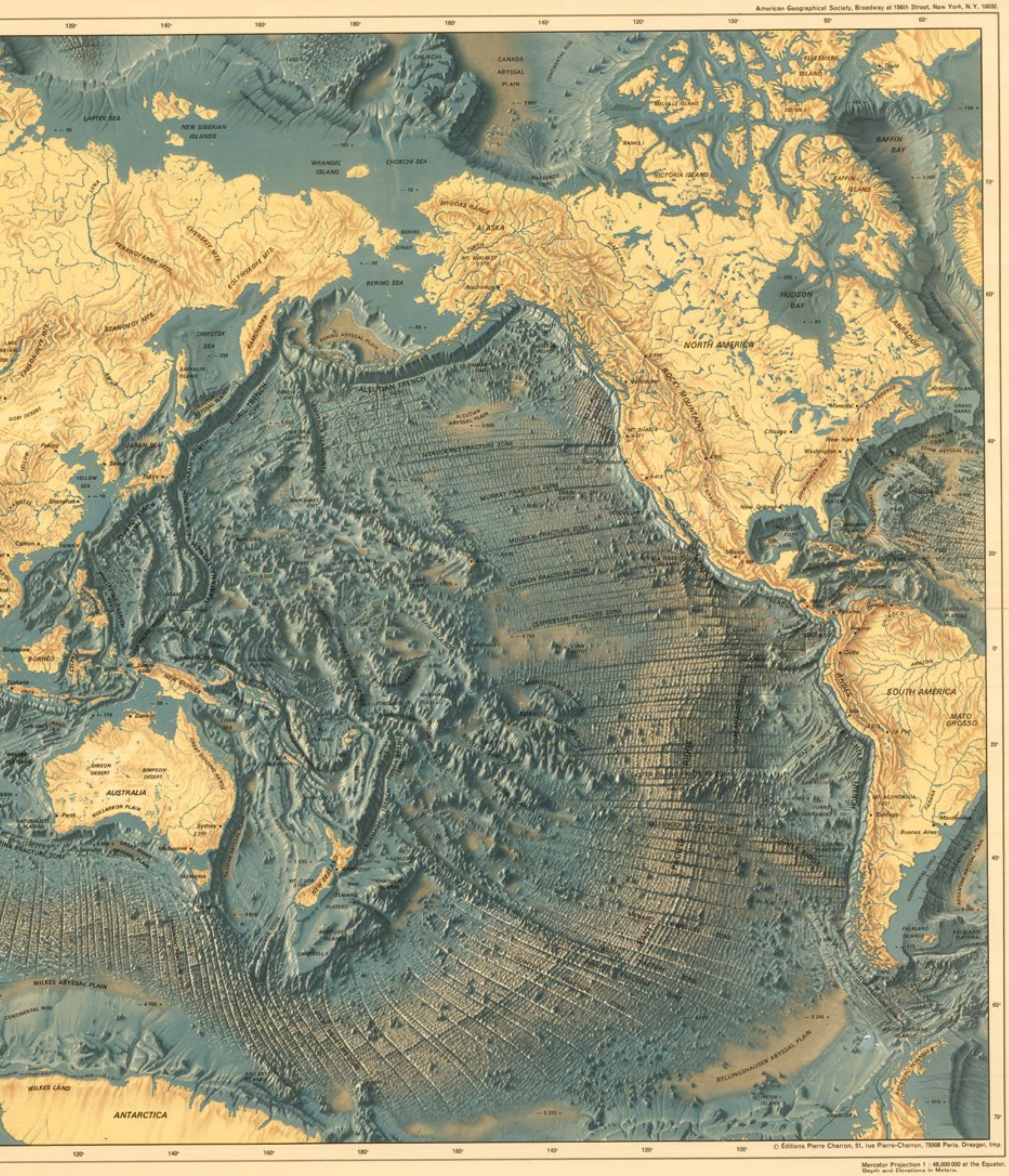
of the Lamont Dober

Columbia University P

SUPPORTED BY THE

OFFICE OF NA

American Geographical Society, Broadway at 156th Street, New York, N.Y. 10032.



LAPTEV SEA
NEW SIBERIAN ISLANDS
WRANGEL ISLAND
CHUKCHI SEA
CHUKCHI CAP
CANADA ABYSSAL PLAIN
BERING STRAIT
BERING SEA
BROOKS RANGE
ALASKA
MT. McKINLEY
ELLESMERE ISLAND
MELVILLE ISLAND
BANKS I.
VICTORIA ISLAND
BAFFIN BAY
BAFFIN ISLAND
HUDSON BAY
LABRADOR
NORTH AMERICA
ROCKY MOUNTAINS
VERKHOYANSK MTS.
CHERSKIY MTS.
KOLYMSKOYE MTS.
STANOVOY MTS.
OKHOTSK SEA
KAMCHATKA
SAKHALIN ISLAND
KURIL TRENCH
ALEUTIAN TRENCH
ALEUTIAN ABYSSAL PLAIN
GOBI DESERT
JAPAN SEA
YELLOW SEA
Peking
Seoul
Tokyo
Shanghai
Canton
TAIWAN
MENDOCINO FRACTURE ZONE
MURRAY FRACTURE ZONE
MOLOKAI FRACTURE ZONE
CLARION FRACTURE ZONE
CLIPPERTON FRACTURE ZONE
Chicago
New York
Washington
New Orleans
Mexico
SOUTH AMERICA
MATO GROSSO
ANDES
Quito
La Paz
Santiago
Buenos Aires
Montevideo
MT. ACONCAGUA
FALKLAND ISLANDS
FALKLAND PLATEAU
Singapore
BORNEO
NEW GUINEA
Darwin
AUSTRALIA
GIBSON DESERT
SIMPSON DESERT
NULLARBOR PLAIN
Perth
Sydney
Melbourne
TASMANIA
NEW ZEALAND
MT. COOK
PACIFIC
WILKES ABYSSAL PLAIN
CONTINENTAL RISE
WILKES LAND
ANTARCTICA
BELLINGSHAUSEN ABYSSAL PLAIN
PETER I ISLAND
CHARCOT I.
SOUTH SHETLAND ISLANDS
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140°
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70°

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Mercator Projection 1 : 48,000 000 at the Equator.
Depth and Elevations in Meters.

F THE OCEANS

hymétric studies by
n and Marie Tharp
ty Geological Observatory
alisades, New York, 10964
UNITED STATES NAVY
AVAL RESEARCH

Tharp's own view of the first map to show the entirety of the world's ocean floors, signed by its creator

H **THARP, Marie; Bruce C. HEEZEN; and Heinrich C. BERANN**

World Ocean Floor by Bruce C. Heezen and Marie Tharp Lamont Doherty Geological Observatory, Palisades, New York 10964. Based on Research and Exploration Initiated and Supported by the United States Navy Office of Naval Research. Mercator Projection. Submarine Depths in Corrected Meters. Land Elevations in Meters. Horizontal Scale 1:46,460,600. Painted by Heinrich C. Berann, assisted by Heinz Vielkind.

Publication
Milwaukee, Wisconsin, Copyright Marie Tharp. Film Work by MCP Co., 1977 [but 1982].

Description
First edition thus. Colour printed panoramic map, signed by Marie Tharp lower right.

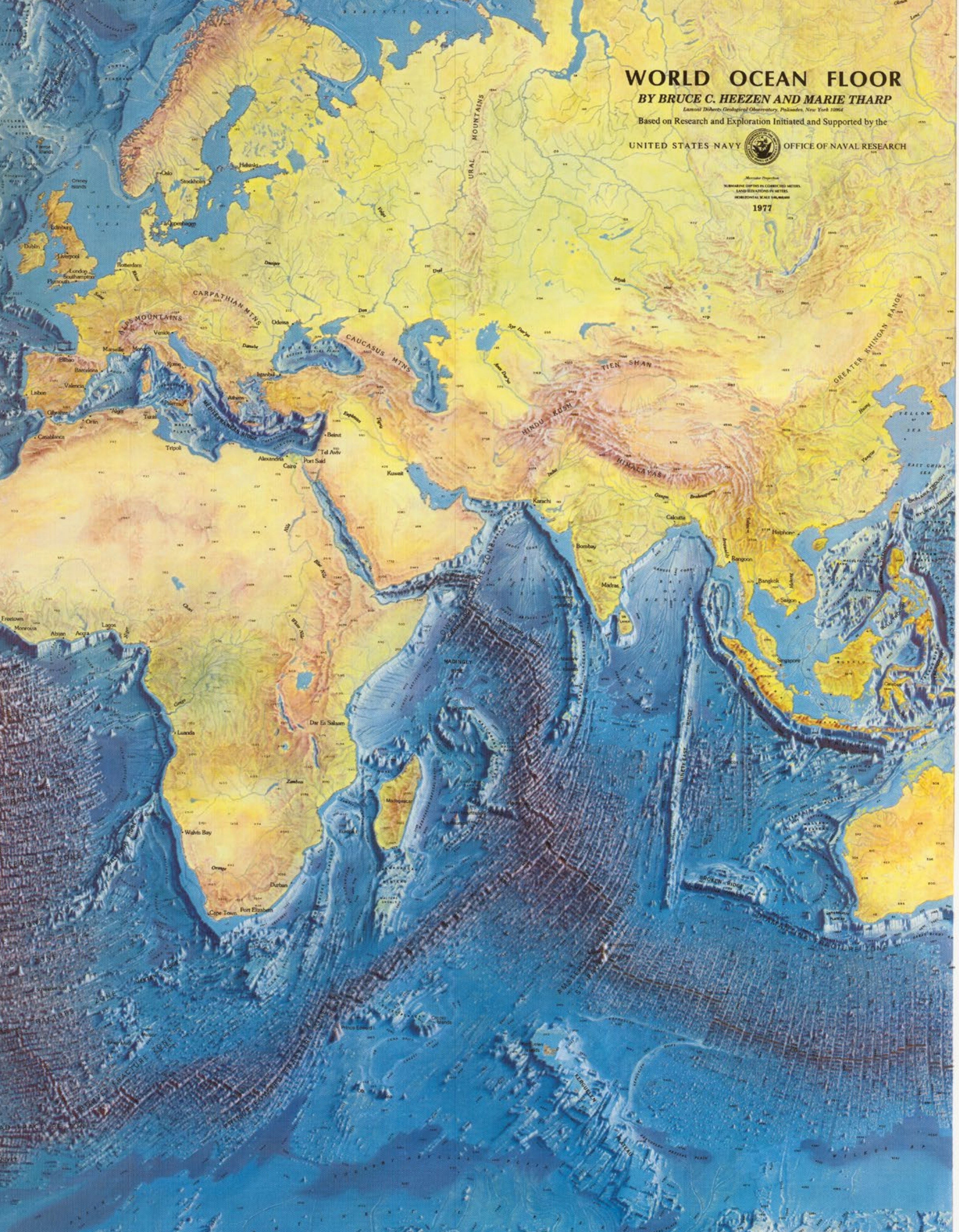
Dimensions
609 by 965mm (24 by 38 inches).

The culmination of thirty years of accumulated bathymetric data, reprinted to coincide with 'The Ocean Floor: Bruce Heezen Commemorative volume' (1982), edited by R. A. Scruiton and M. Talwani. First published shortly after the death of Bruce Heezen in 1977.

The fourth in Tharp and Heezen's physiographic diagrams of the world's ocean floors, their magnum opus is preceded by maps of the North and South Atlantic, and the Indian Oceans. Their first map was published as an accompaniment to the Bell Telephone System's 'Technical Journal' (1957), followed by a Geological Society of America edition in 1959.

First published in 1977, but preceded by a very different version drawn by de Remur and published in Paris in 1976, the original artwork for this map, painted by Heinrich Berann (1915-1999), is now in the Library of Congress. It clearly depicts for the first time, all the ridges and continental plates of the whole earth, including the Mid-Atlantic Rift Valley, that Marie first observed in the 1950s. As detailed contour maps of the ocean floor were classified by the U.S. Navy, this physiographic panorama enabled Tharp and Heezen to publish their data, and to reach a wider audience who could visualize the seafloor, as a result.

Provenance
Marie Tharp (1920-2006).



WORLD OCEAN FLOOR

BY BRUCE C. HEEZEN AND MARIE THARP

Lamont Doherty Geological Observatory, Palisades, New York 10964

Based on Research and Exploration Initiated and Supported by the

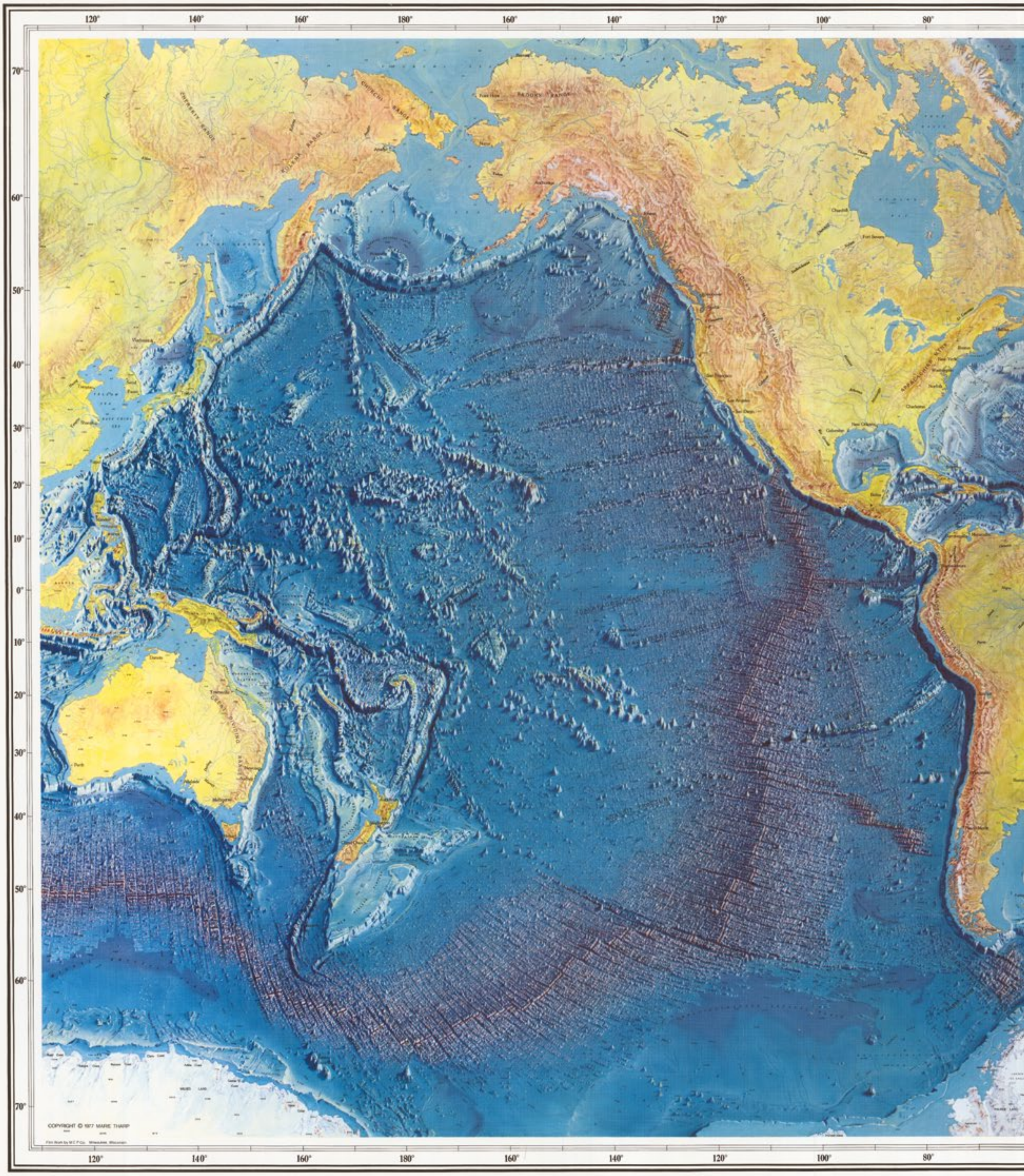
UNITED STATES NAVY OFFICE OF NAVAL RESEARCH

Mercator Projection

SUBMARINE DEPTHS IN CORRECTED METERS.
LAND ELEVATIONS IN METERS.
HORIZONTAL SCALE [illegible]

1977

BARENTS SEA
URAL MOUNTAINS
Oslo
Stockholm
Helsinki
Copenhagen
Orkney Islands
NORTH SEA
Edinburgh
Dublin
Liverpool
London
Southampton
Plymouth
Rotterdam
Rhine
Dnieper
Volga
Ural
Irtysh
CARPATHIAN MTNS
ALPS MOUNTAINS
Venice
Odessa
Don
Danube
Marseille
Bilbao
Barcelona
Rome
Lisbon
Valencia
Istanbul
CAUCASUS MTNS
Syr Dar'ya
Amu Dar'ya
TIEN SHAN
GREATER KHINGAN RANGE
Gibraltar
Algiers
Tunis
Palermo
Athens
Oran
Casablanca
Tripoli
Beirut
Tel Aviv
Alexandria
Cairo
Port Said
Euphrates
Tigris
Kuwait
HINDU KUSH
HIMALAYAS
Indus
Ganges
Brahmaputra
Huang
Yangtze
YELLOW SEA
EAST CHINA SEA
Karachi
Calcutta
Haiphong
Bombay
Rangoon
Irrawaddy
Madras
Bangkok
Mekong
Saigon
Singapore
Nile
Blue Nile
White Nile
Chari
Niger
Freetown
Monrovia
Abidjan
Accra
Lagos
Congo
Luanda
Dar Es Salaam
Zambezi
Madagascar
Walvis Bay
Orange
Durban
Cape Town
Port Elizabeth
MADINGLEY RISE
OWEN FRACTURE ZONE
CARLSBERG RIDGE
NINETY EAST RIDGE
BROKEN RIDGE
AMSTERDAM FRACTURE ZONE
Prince Edward I.
Crozet Islands
KERGUELEN
FRACTURE ZONE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WILKES LAND

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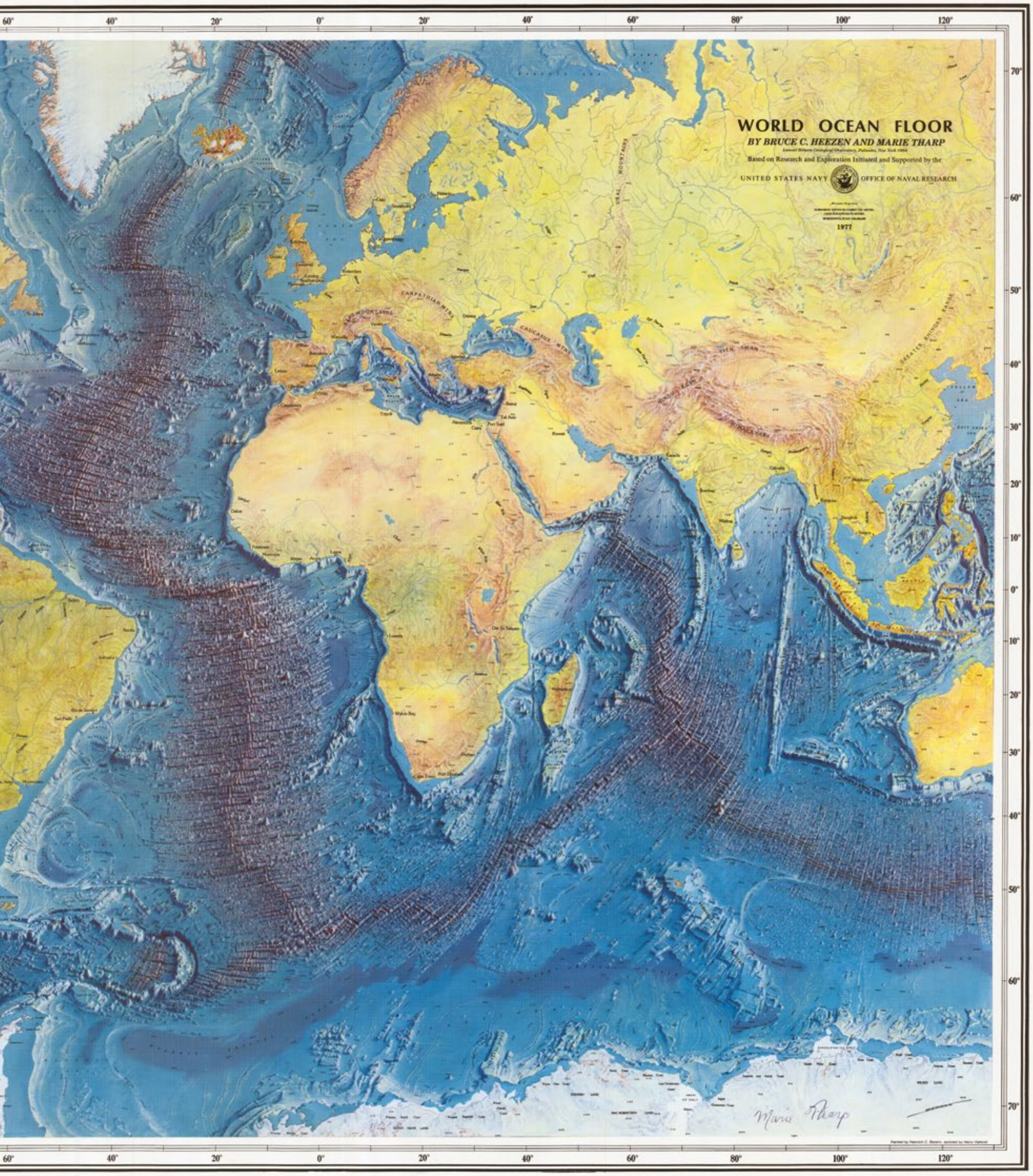
Film Work by M.C.P. Co. Milwaukee, Wisconsin



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URAL MOUNTAINS
CARPATHIAN MTS.
CAUCASUS MTS.
ALPS MOUNTAINS
TIEN SHAN
HINDU KUSH
GREATER KHINGAN RANGE
WILKES LAND

WORLD OCEAN FLOOR

BY BRUCE C. HEEZEN AND MARIE THARP

Lamont-Doherty Geological Observatory, Palisades, New York 10964

Based on Research and Exploration Initiated and Supported by the

UNITED STATES NAVY OFFICE OF NAVAL RESEARCH

1977

Marie Tharp

Painted by Heinrich C. Berann, assisted by Heinz Vielkind

The first map to show the entirety of the world's ocean floors – in miniature

1 THARP, Marie; Bruce C. HEEZEN; and Tanguy DE REMUR

The Floor of the Oceans.

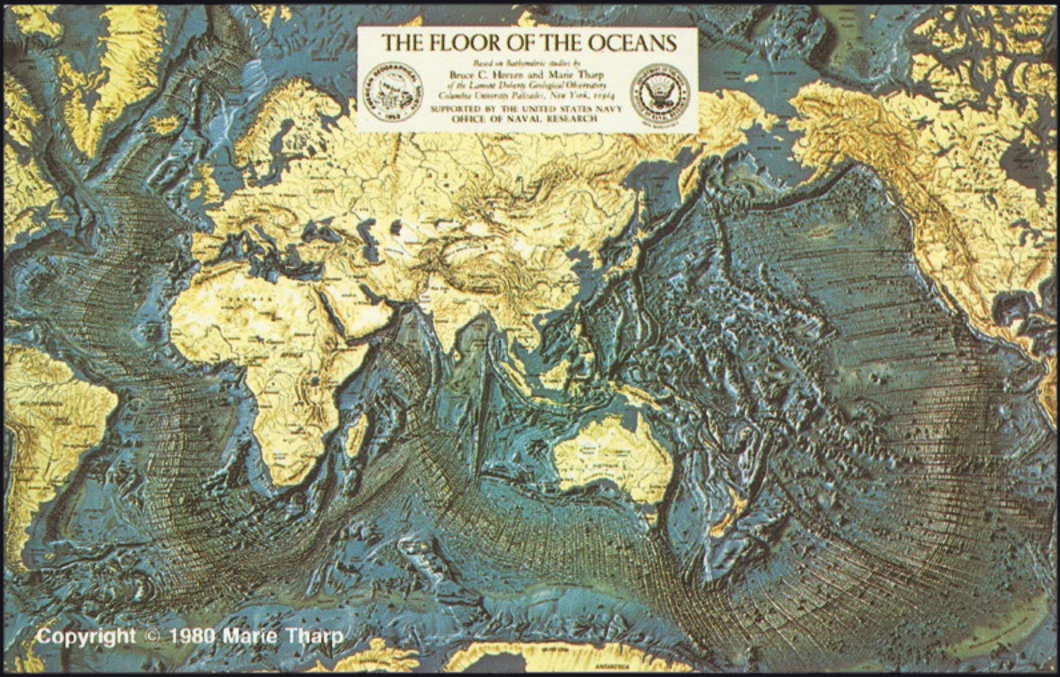
Publication
New York, Marie Tharp, 1980.

Description
Colour printed post card.

Dimensions
90 by 140mm (3.5 by 5.5 inches).

One of a limited number of post cards printed specially for Marie Tharp commemorating "the thirteenth year of support to oceanographic studies by the Office of Naval Research, this unique map brings out the topographic features of the world's ocean floors in striking detail. Based on bathymetric data collected from worldwide sources and compiled by Bruce C. Heezen and Marie Tharp of Lamont Doherty Geological Observatory, Columbia University". A reduced version of the large wall map of the same title published in 1976.

Provenance
Marie Tharp (1920-2006).


THE FLOOR OF THE OCEANS
Based on Bathymetric studies by
Bruce C. Heezen and Marie Tharp
of the Lamont Doherty Geological Observatory
Columbia University Palisades, New York, 10964
SUPPORTED BY THE UNITED STATES NAVY
OFFICE OF NAVAL RESEARCH
ANTARCTICA

Copyright © 1980 Marie Tharp

Tharp's own view of the first map to show the entirety of the world's ocean floors – in miniature

J **THARP, Marie; Bruce C. HEEZEN; and Heinrich C. BERANN**

World Ocean Floor.

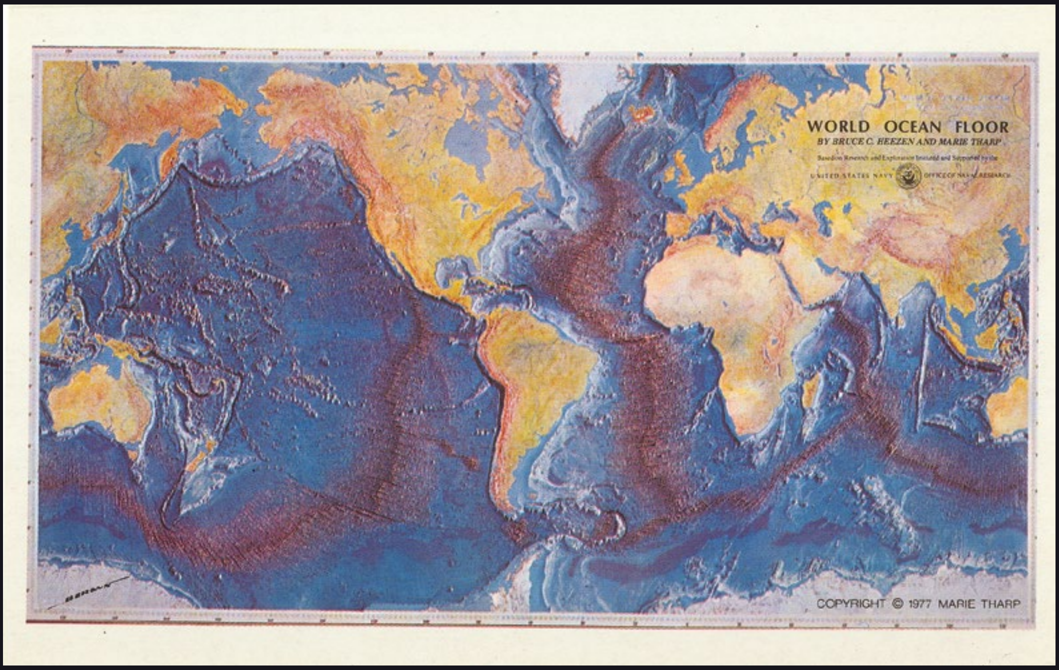
Publication
New York, Marie Tharp, 1977 [but 1982].

Description
Colour printed post card.

Dimensions
90 by 140mm (3.5 by 5.5 inches).

One of 2000 post cards printed specially for Marie Tharp, of the first complete physiographic map of the world's ocean floor.

Provenance
Marie Tharp (1920-2006).


WORLD OCEAN FLOOR
BY BRUCE C. HEEZEN AND MARIE THARP
Based on Research and Exploration Initiated and Supported by the
UNITED STATES NAVY OFFICE OF NAVAL RESEARCH
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Rings of Fire

K THARP, Marie; Bruce C. HEEZEN; Heinrich C. BERANN; Alvaro F. ESPINOSA; and Wilbur RINEHART

Seismicity of the Earth 1960-1980.

Publication
[Washington, DC], United States Navy through the Office of Naval Research, 1982.

Description
Colour printed map on laminated paper.

Dimensions
510 by 920mm (20 by 36.25 inches).

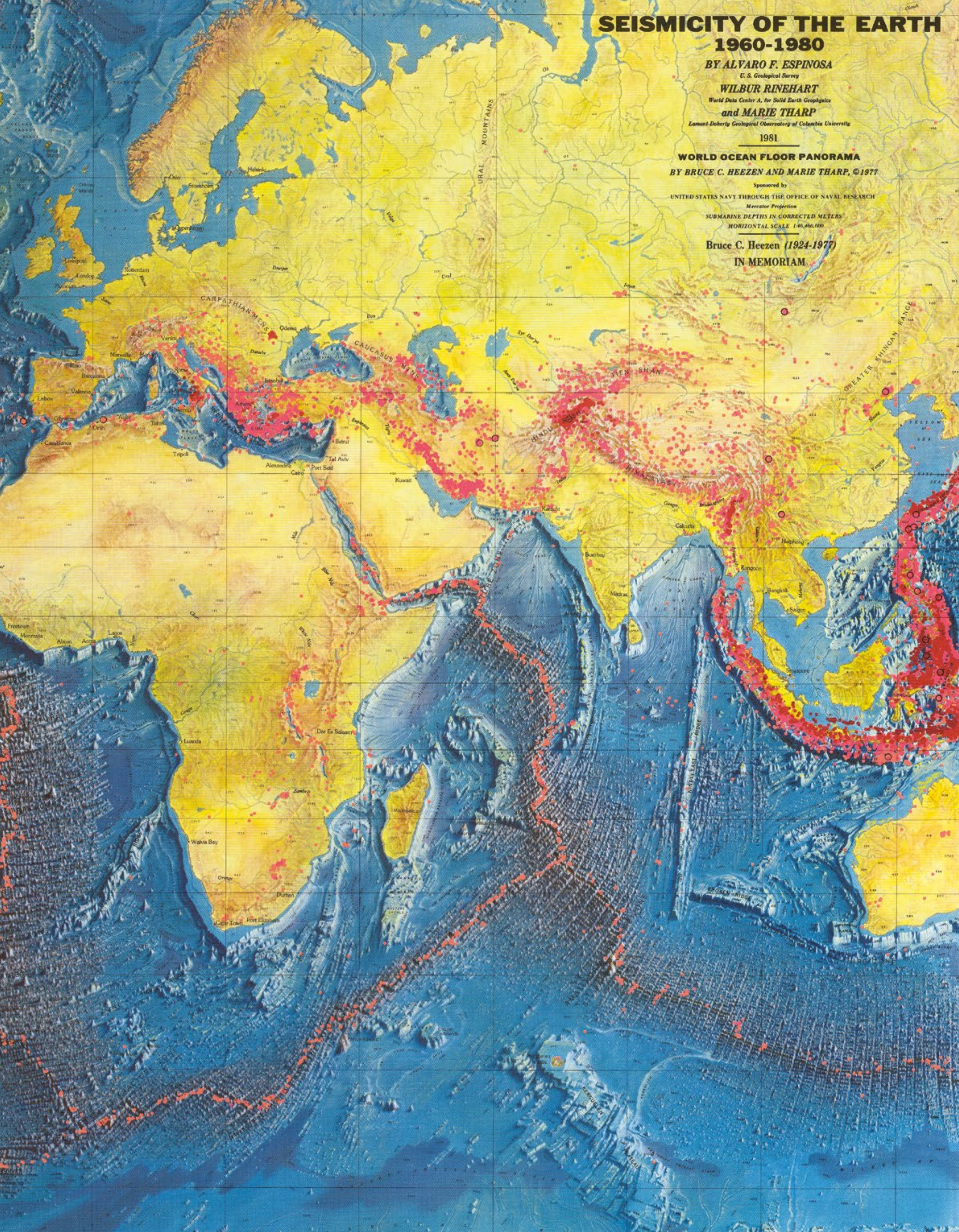
Based on the 'World Ocean Floor' (1977) map by Marie Tharp and Bruce Heezen, the first complete physiographic map of the world's ocean floor, here overlaid with the magnitude and depth of earthquake activity recorded by Alvaro Espinosa and Wilbur Rinehart. Over 50,000 events, with a magnitude of greater than 4.5 on the Richter scale are recorded: clearly illustrating the so-called "Ring of Fire" around the Pacific rim, as well as other chains of seismic activity associated with plate tectonics.

Dr. Espinosa (1933-2015), one of the world's leading geophysics research scientists, worked for the U.S. Department of Commerce and the Department of the Interior, spending most of his career with the U.S. Geological Survey. He published several hundred maps, including this of 'Seismicity of the Earth' map, considered the definitive map of its time.

Dedicated to the memory of Bruce Heezen, who died of a heart attack aboard a US Naval submarine while observing the crest of the mid-ocean ridge in the North Atlantic off Iceland in 1977, before the 'World Ocean Floor' map was published.

One of the earliest scientifically researched seismographic maps of the world was the... 'Seismographic Map of the World, showing the surface distribution in space of Earthquakes, as discussed from the British Association Catalog...' (1857) by the father of seismography, Robert Mallet and his son, John.

Provenance
Marie Tharp (1920-2006).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CAUCASUS MTNS
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GREATER KHINGAN RANGE
YELLOW SEA
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Copenhagen
Liverpool
London
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Rotterdam
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Dar Es Salaam
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Cape Town
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Volga
Dnieper
Don
Danube
Ural
Irtysh
Syr Darya
Amu Darya
Euphrates
Tigris
Nile
White Nile
Blue Nile
Congo
Zambezi
Orange
Ganges
Brahmaputra
Mekong
Yangtze
Huang
BROKEN RIDGE
KERGUELEN

SEISMICITY OF THE EARTH
1960-1980

BY ALVARO F. ESPINOSA
U. S. Geological Survey
WILBUR RINEHART
World Data Center A, for Solid Earth Geophysics
and MARIE THARP
Lamont-Doherty Geological Observatory of Columbia University

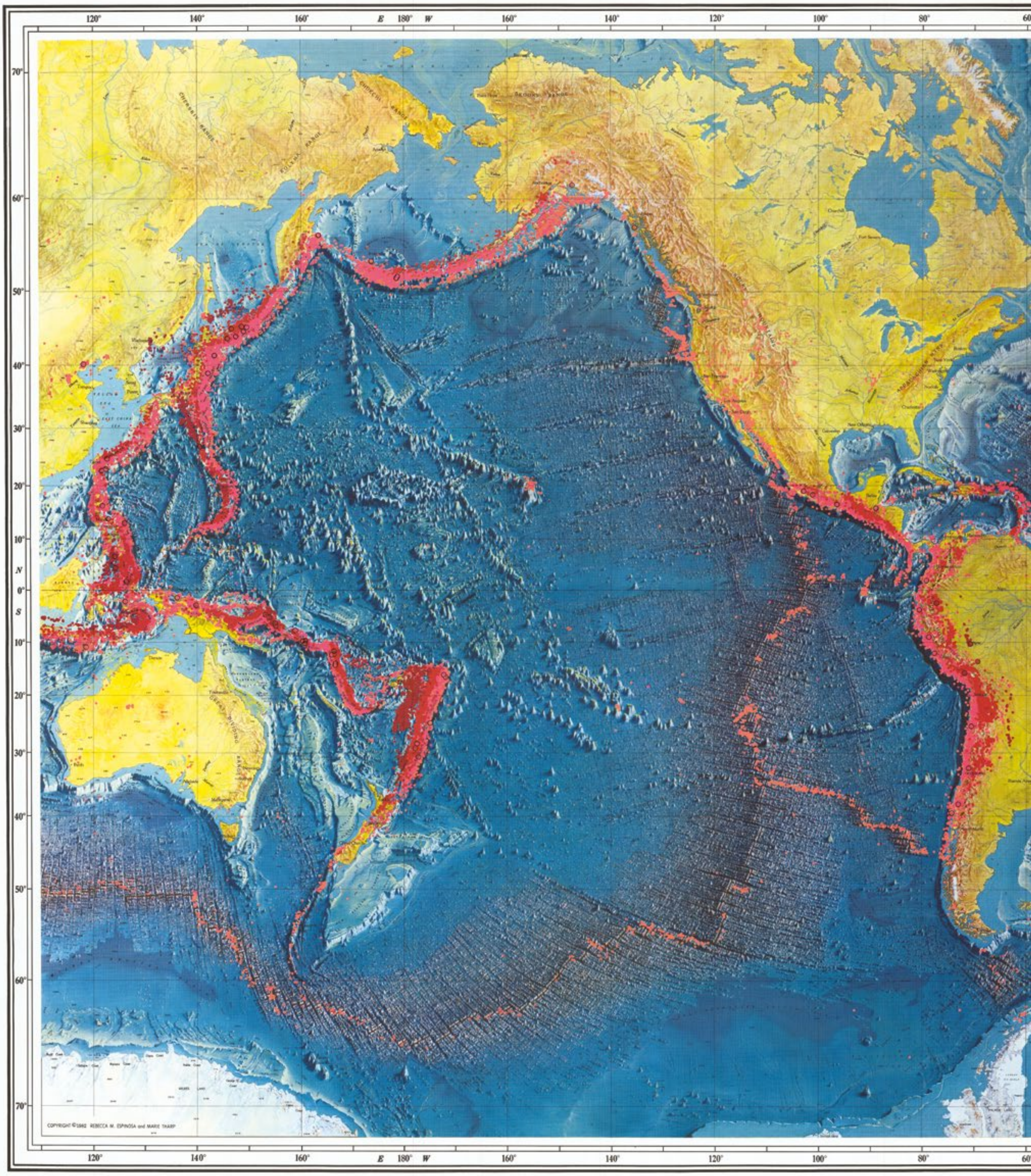
1981

WORLD OCEAN FLOOR PANORAMA

BY BRUCE C. HEEZEN AND MARIE THARP, ©1977

Sponsored by
UNITED STATES NAVY THROUGH THE OFFICE OF NAVAL RESEARCH
Mercator Projection
SUBMARINE DEPTHS IN CORRECTED METERS
HORIZONTAL SCALE 1:46,460,600

Bruce C. Heezen *(1924-1977)*
IN MEMORIAM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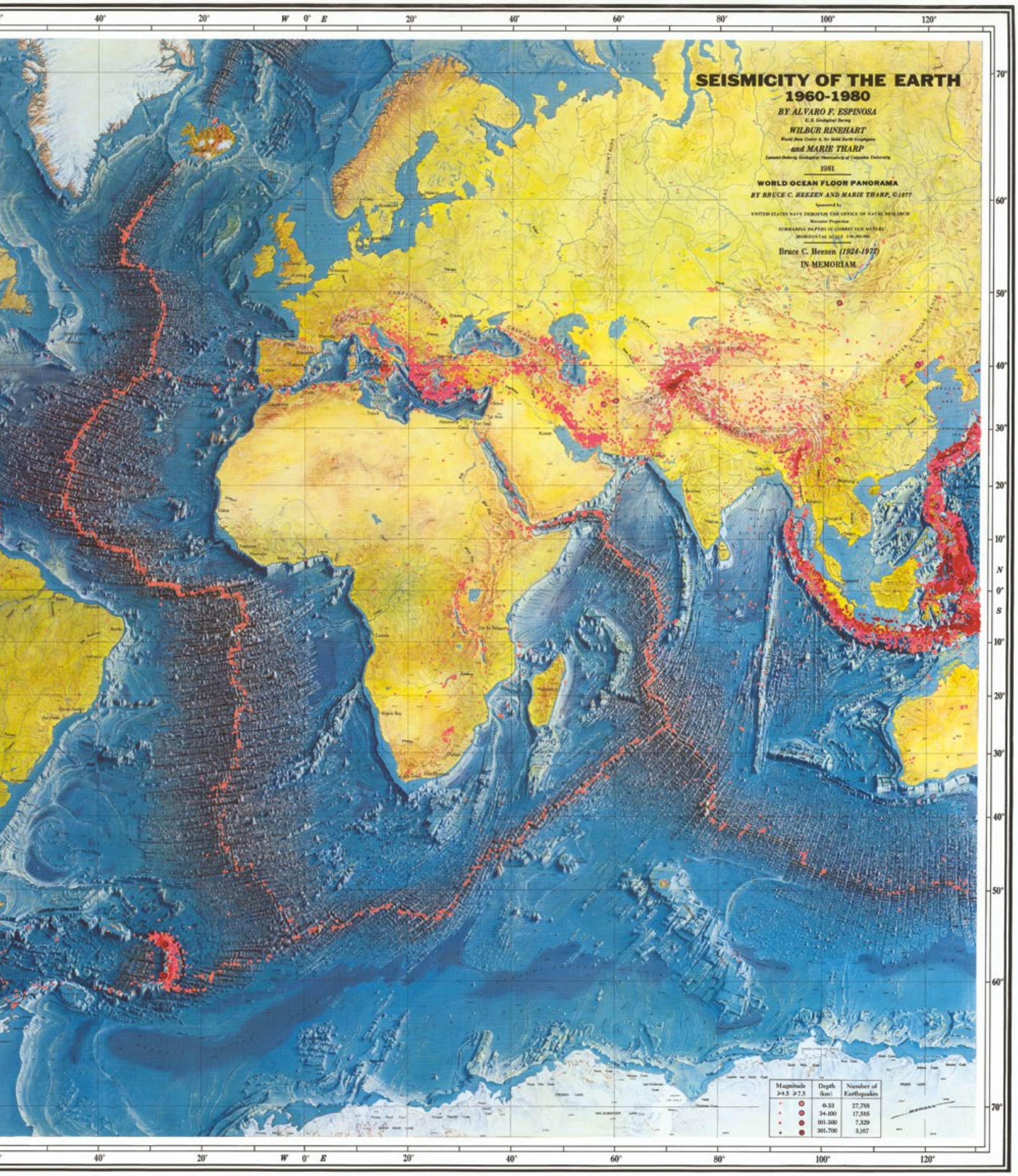
COPYRIGHT ©1982 REBECCA M. ESPINOSA and MARIE THARP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URAL MOUNTAINS

SEISMICITY OF THE EARTH
1960-1980

BY ALVARO F. ESPINOSA
U.S. Geological Survey
WILBUR RINEHART
World Data Center A, for Solid Earth Geophysics
and MARIE THARP
Lamont-Doherty Geological Observatory of Columbia University
1981

WORLD OCEAN FLOOR PANORAMA
BY BRUCE C. HEEZEN AND MARIE THARP, ©1977
Sponsored by
UNITED STATES NAVY THROUGH THE OFFICE OF NAVAL RESEARCH
Mercator Projection
SUBMARINE DEPTHS IN CORRECTED METERS
HORIZONTAL SCALE [illegible]

Bruce C. Heezen *(1924-1977)*
IN MEMORIAM

Magnitude ≥4.5	Magnitude ≥7.5	Depth (km)	Number of Earthquakes
•	●	0-33	27,758
•	●	34-100	17,585
•	●	101-300	7,329
•	●	301-700	3,167

Rings of Fire - waterproofed

L **THARP, Marie; Bruce C. HEEZEN; Heinrich C. BERANN; Alvaro F. ESPINOSA; and Wilbur RINEHART**

Seismicity of the Earth 1960-1980.

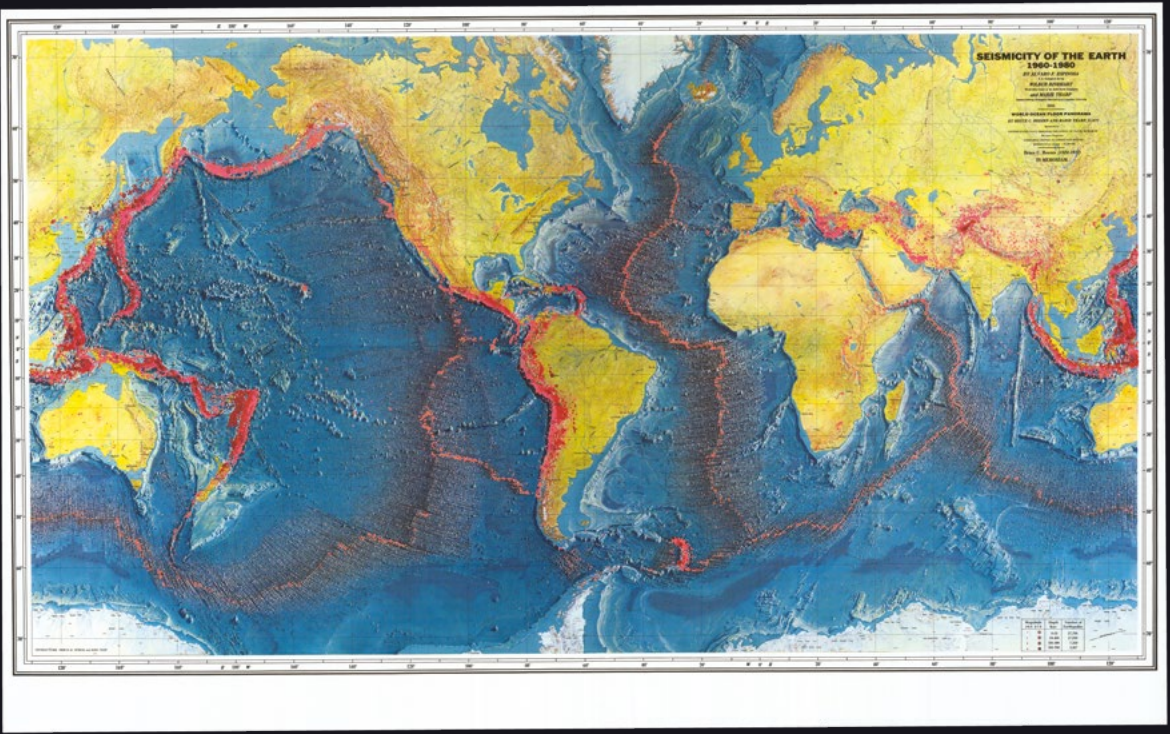
Publication
[Washington, DC], United States Navy through the Office of Naval Research, 1982.

Description
Colour printed map on kimdura waterproof paper.

Dimensions
510 by 920mm (20 by 36.25 inches).

Another example, specially printed on kimdura waterproof paper.

Provenance
Marie Tharp (1920-2006).


SEISMICITY OF THE EARTH
1960-1980

The artist that inspired an oceanographer

M **BERANN, Heinrich C.; and Marie THARP**

[Monumental Panorama of the Alps in Winter].

Publication
[1976-1977].

Description
Colour printed panorama on 2 joined sheets.

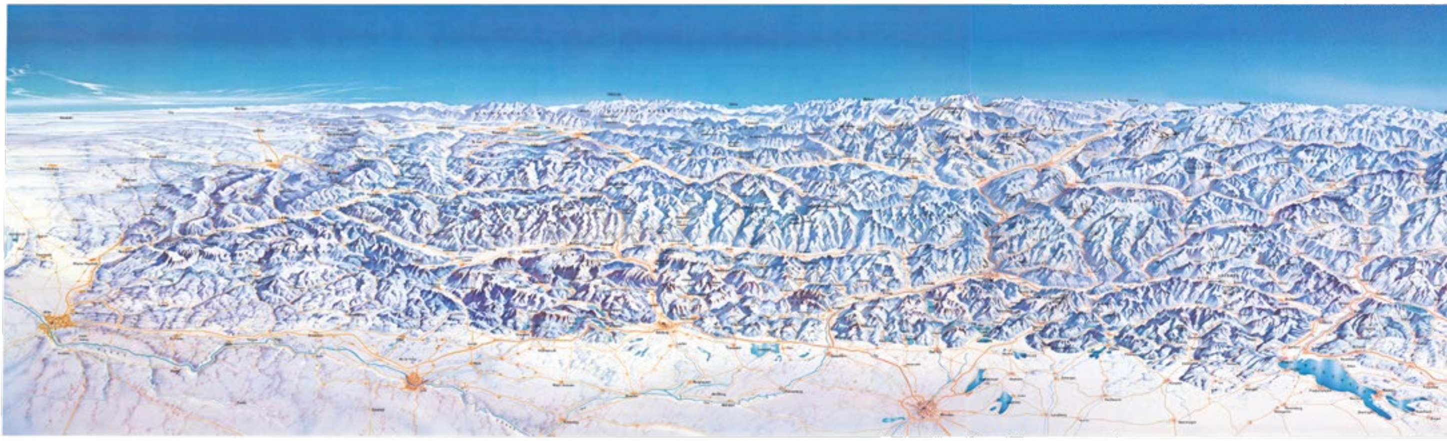
Dimensions
318 by 1854mm (12.5 by 73 inches).

First and only edition of this sweeping bird's-eye view snowscape panorama of the Alps, oriented with the southeast to the top, extending all the way from Vienna, to the left, all the way to Marseille and the Golfe du Lion, to the right; almost twice the length of any of Berann's other published depictions of the Alps.

From the library of oceanographer, Marie Tharp, who took inspiration from Heinrich Berann's panoramas of the world's mountains, to create the first maps of the world's oceans. Tharp had a close relationship with Berann, who painted the only known portrait of her in 1976.

Tharp first published her map of the 'Whole Ocean Floor' in 1977, painted by Heinrich Berann (1915-1999) the original artwork for which map is now in the Library of Congress. The choice of Berann was made by Tharp, who recognized the similarity of the ocean terrain to that of mountainous regions on land. She greatly admired the way that these were captured by Berann, who first caught the attention of the artistic world with his prize-winning panorama map of the newly opened 'Großglockner Hochalpenstraße' mountain pass in Austria in 1934. This was followed in 1937 by his famous depiction of the 'Jungfraubahn' mountain railroad in Switzerland. Between 1956 and 1998 he created the panoramic views of the snowcapped resorts for the Winter Olympics; the Alps; the Himalayas; and the floors of the world's oceans for Bruce Heezen and Tharp.

Provenance
Marie Tharp (1920-2006).



The Alps in Summer

N **BERANN, Heinrich C.; and Marie THARP**

The Alps Europe's Top Attraction All Year Round.

Publication
Innsbruck, Austria, for the Governments of Austria, France, Germany, Italy, Monaco, Switzerland and Yugoslavia by Wagner sche Univ.-Buchdrckerei Buchroithner & Co., 9078 [1966-1967].

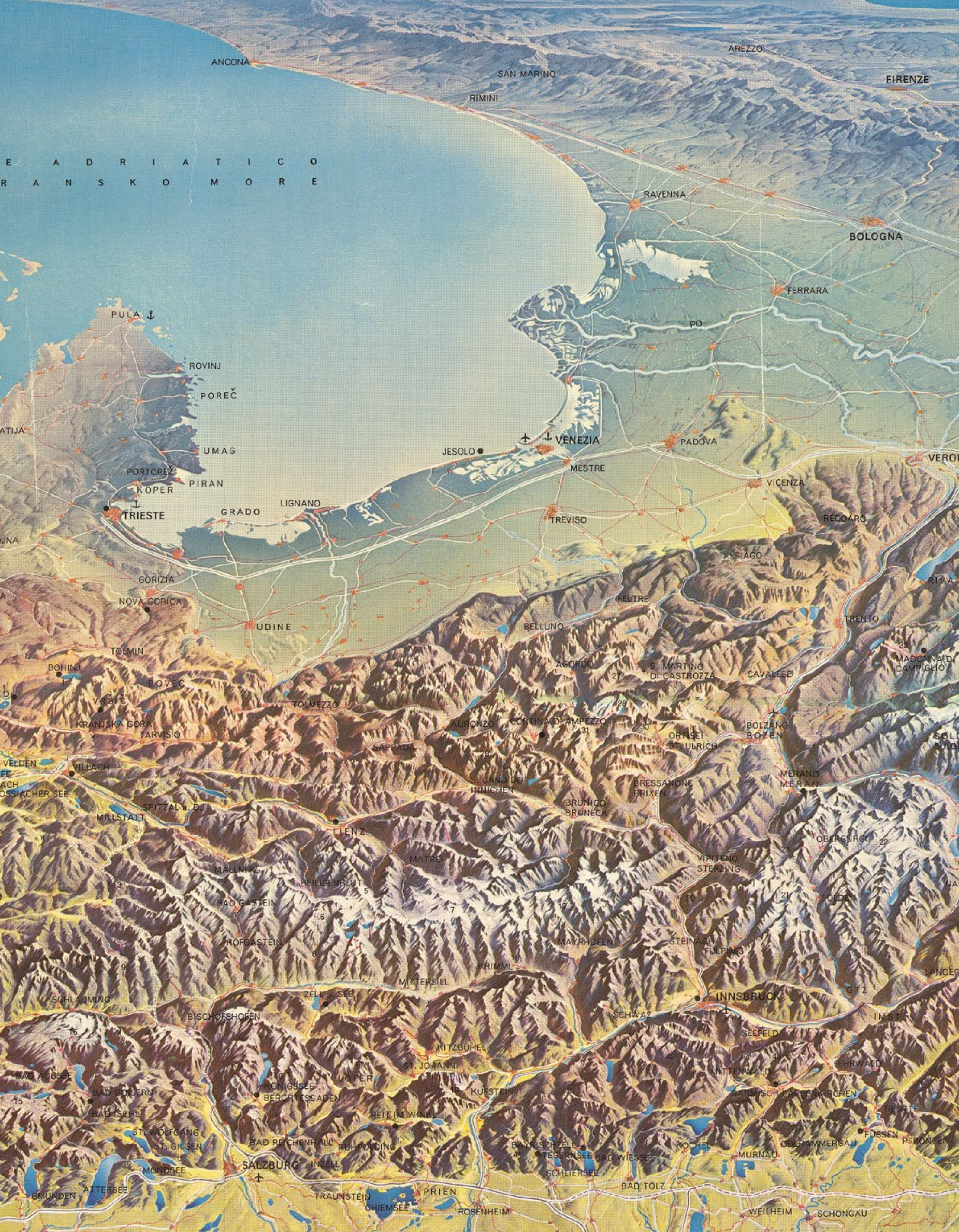
Description
Colour printed panorama, with index to mountains and passes and 2 insets showing location of the world's alpine countries and international boundaries within the Alps region; a bit creased.

Dimensions
420 by 800mm (16.5 by 31.5 inches).

First edition of this bird's-eye view panorama of the alps in summer, unusually oriented with the southeast to the top, extending all the way from Vienna, to the left, to Marseille to the right, and to Rome in the south.

From the library of oceanographer, Marie Tharp, who took inspiration from Heinrich Berann's panoramas of the world's mountains, to create the first maps of the world's oceans. Tharp had a close relationship with Berann, who painted the only known portrait of her in 1976.

Provenance
Marie Tharp (1920-2006).


ANCONA
SAN MARINO
AREZZO
FIRENZE
RIMINI
E ADRIATICO
RANSKO MORE
RAVENNA
BOLOGNA
FERRARA
PO
PULA
ROVINJ
POREČ
ATIJA
UMAG
JESOLO
VENEZIA
PADOVA
MESTRE
VERO
PORTOROŽ
KOPER
PIRAN
TRIESTE
GRADO
LIGNANO
TREVISO
VICENZA
RECOARO
NA
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NOVA GORICA
FELTRE
RIVA
UDINE
BELLUNO
TRENTO
TOLMIN
BOHINJ
AGORDO
S. MARTINO DI CASTROZZA
CAVALESE
MADONNA DI CAMPIGLIO
BOVEC
VRŠIČ
TOLMEZZO
KRANJSKA GORA
TARVISIO
AURONZO
CORTINA D'AMPEZZO
BOLZANO BOZEN
ORTISEI ST. ULRICH
SAPPADA
VELDEN
VILLACH
OSSIACHER SEE
S. CANDIDO INNICHEN
BRESSANONE BRIXEN
MERANO MERAN
SPITTAL a. D.
MILLSTATT
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MATREI
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MALLNITZ
HEILIGENBLUT
SÖLDEN
BAD GASTEIN
HOFGASTEIN
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STEINACH
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KRIMML
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MITTERSILL
ÖTZ
SCHLADMING
ZELL a. SEE
INNSBRUCK
BISCHOFSHOFEN
SCHWAZ
IMST
SEEFELD
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ST. JOHANN
EHRWALD
BAD AUSSEE
LOFER
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BERCHTESGADEN
BAD GOISERN
KUFSTEIN
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BAD REICHENHALL
RUHPOLDING
BAYRISCHZELL
KOCHEL
OBERAMMERGAU
PFRONTEN
TEGERNSEE
BAD WIESSEE
MURNAU
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SALZBURG
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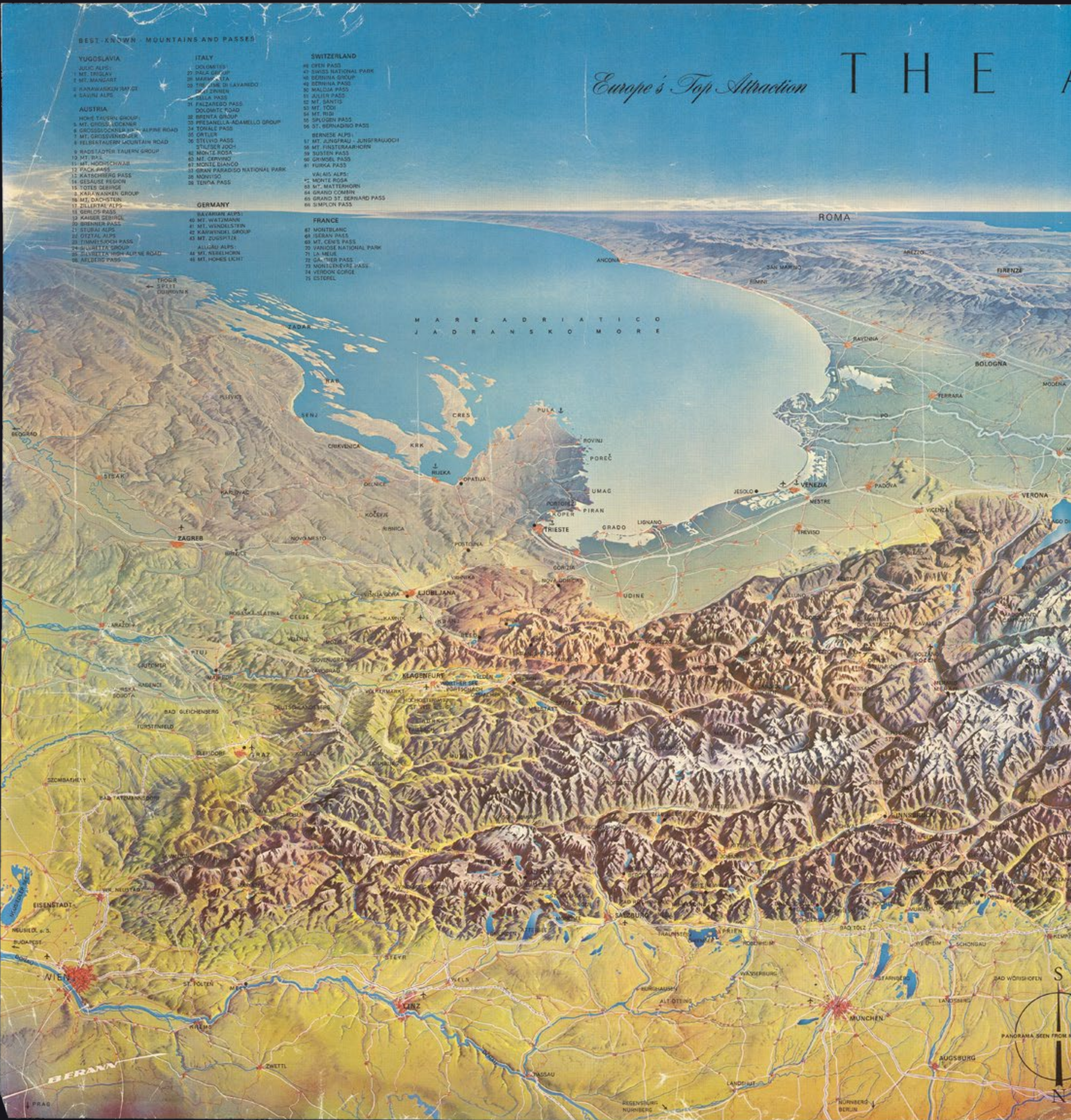
Europe's Top Attraction THE A


BEST-KNOWN MOUNTAINS AND PASSES
YUGOSLAVIA
JULIC ALPS:
1 MT. TRIGLAV
2 MT. MANGART
3 KARAWANKEN RANGE
4 SAVINJ ALPS
AUSTRIA
HOHE TAUERN GROUP:
5 MT. GROSSGLOCKNER
6 GROSSGLOCKNER HIGH ALPINE ROAD
7 MT. GROSSVENEDIGER
8 FELBERTAUERN MOUNTAIN ROAD
9 RADSTÄDTER TAUERN GROUP
10 MT. RAX
11 MT. HOCHSCHWAB
12 PACK PASS
13 KATSCHBERG PASS
14 GESÄUSE REGION
15 TOTES GEBIRGE
3 KARAWANKEN GROUP
16 MT. DACHSTEIN
17 ZILLERTAL ALPS
18 GERLOS PASS
19 KAISER GEBIRGE
20 BRENNER PASS
21 STUBAI ALPS
22 ÖTZTAL ALPS
23 TIMMELSJOCH PASS
24 SILVRETTA GROUP
25 SILVRETTA HIGH ALPINE ROAD
26 ARLBERG PASS
ITALY
DOLOMITES:
27 PALA GROUP
28 MARMOLATA
29 TRE CIME DI LAVAREDO
DREI ZINNEN
30 SELLA PASS
31 FALZAREGO PASS
DOLOMITE ROAD
32 BRENTA GROUP
33 PRESANELLA-ADAMELLO GROUP
34 TONALE PASS
35 ORTLER
36 STELVIO PASS
STILFSER JOCH
62 MONTE ROSA
63 MT. CERVINO
67 MONTE BIANCO
37 GRAN PARADISO NATIONAL PARK
38 MONVISO
39 TENDA PASS
GERMANY
BAVARIAN ALPS:
40 MT. WATZMANN
41 MT. WENDELSTEIN
42 KARWENDEL GROUP
43 MT. ZUGSPITZE
ALLGÄU ALPS:
44 MT. NEBELHORN
45 MT. HOHES LICHT
SWITZERLAND
46 OFEN PASS
47 SWISS NATIONAL PARK
48 BERNINA GROUP
49 BERNINA PASS
50 MALOJA PASS
51 JULIER PASS
52 MT. SANTIS
53 MT. TÖDI
54 MT. RIGI
55 SPLÜGEN PASS
56 ST. BERNADINO PASS
BERNESE ALPS:
57 MT. JUNGFRAU - JUNGFRAUJOCH
58 MT. FINSTERAARHORN
59 SUSTEN PASS
60 GRIMSEL PASS
61 FURKA PASS
VALAIS ALPS:
62 MONTE ROSA
63 MT. MATTERHORN
64 GRAND COMBIN
65 GRAND ST. BERNARD PASS
66 SIMPLON PASS
FRANCE
67 MONTBLANC
68 ISERAN PASS
69 MT. CENIS PASS
70 VANIOSE NATIONAL PARK
71 LA MEIJE
72 GALIBIER PASS
73 MONTGENEVRE PASS
74 VERDON GORGE
75 ESTEREL
ROMA
ANCONA
SAN MARINO
RIMINI
AREZZO
FIRENZE
RAVENNA
BOLOGNA
MODENA
FERRARA
PO
MARE ADRIATICO
JADRANSKO MORE
TROGIR
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KOPER
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BEOGRAD
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KARLOVAC
ZAGREB
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POSTOJNA
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LIGNANO
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VENEZIA
MESTRE
PADOVA
VICENZA
VERONA
TREVISO
GORIZIA
NOVA GORICA
UDINE
LJUBLJANA
CELJE
PTUJ
MARIBOR
KLAGENFURT
VILLACH
WÖRTHER SEE
GRAZ
BAD GLEICHENBERG
FÜRSTENFELD
SZOMBATHELY
BAD TATZMANNSDORF
EISENSTADT
WR. NEUSTADT
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PANORAMA SEEN FROM
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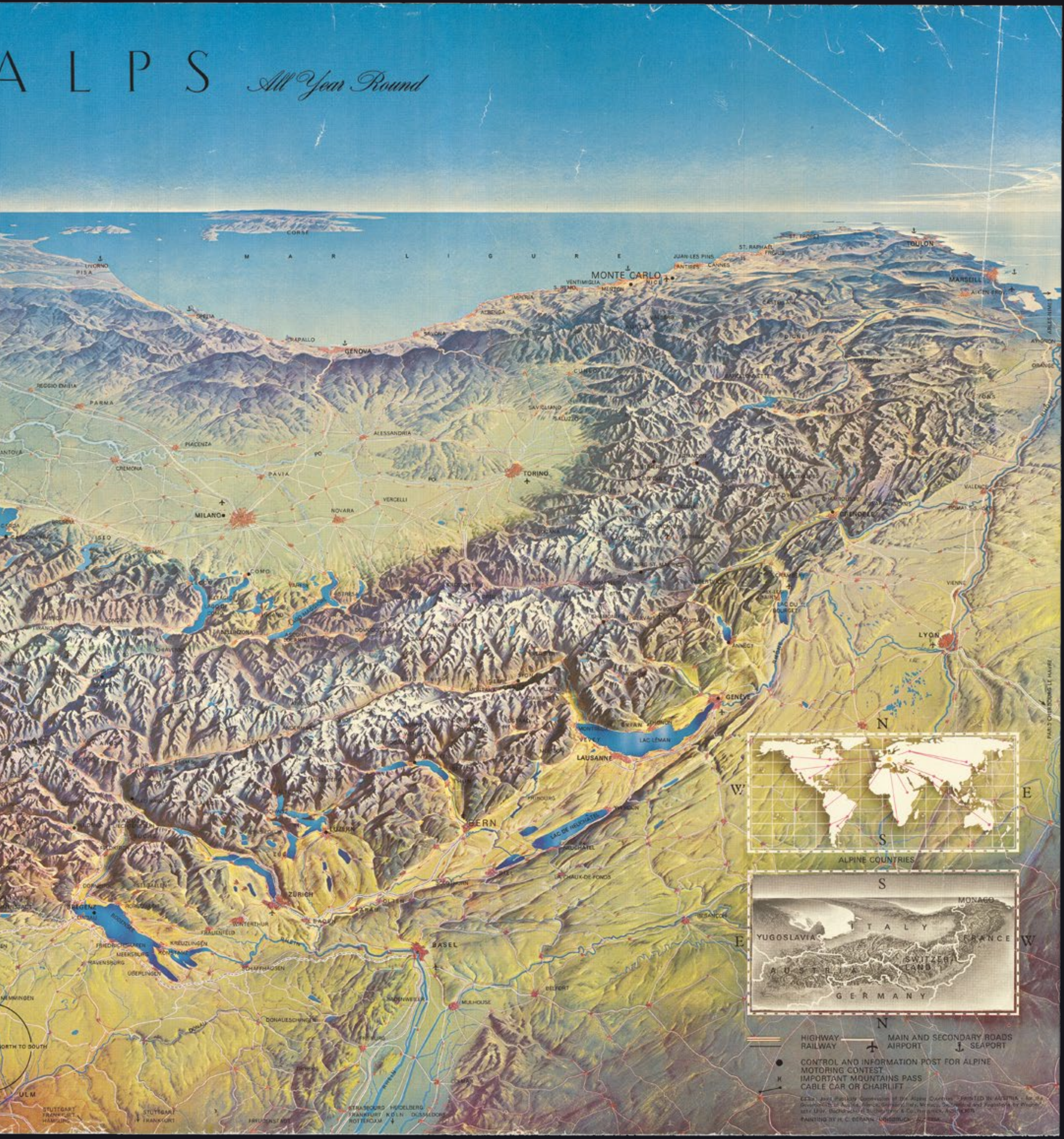
ALPS

All Year Round



MAR LIGURE
CORSE
LIVORNO
PISA
LA SPEZIA
RAPALLO
GENOVA
SAVONA
ALBENGA
IMPERIA
S. REMO
VENTIMIGLIA
MENTON
MONTE CARLO
NICE
ANTIBES
CANNES
JUAN-LES-PINS
ST. RAPHAEL
FREJUS
ST. TROPEZ
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AIX-EN-PROVENCE
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ORANGE
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REGGIO EMILIA
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PIACENZA
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ALESSANDRIA
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SAVIGLIANO
SALUZZO
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LAGO MAGGIORE
BELLINZONA
GRENOBLE
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GENÈVE
EVIAN
LAC LÉMAN
MONTREUX
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LAC DE NEUCHÂTEL
NEUCHÂTEL
LA CHAUX-DE-FONDS
ZÜRICH
WINTERTHUR
FRAUENFELD
SCHAFFHAUSEN
BASEL
MULHOUSE
BELFORT
BESANÇON
BREGENZ
FRIEDRICHSHAFEN
MEERSBURG
KONSTANZ
KREUZLINGEN
RAVENSBURG
ÜBERLINGEN
MEMMINGEN
ULM
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BADENWEILER
RHEIN
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STUTTGART FRANKFURT
FREUDENSTADT
STRASBOURG HEIDELBERG FRANKFURT KÖLN DÜSSELDORF ROTTERDAM
NORTH TO SOUTH
PARIS CHERBOURG LE HAVRE
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YUGOSLAVIA
ITALY
FRANCE
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SWITZERLAND
GERMANY
N
HIGHWAY
RAILWAY
MAIN AND SECONDARY ROADS
AIRPORT
SEAPORT
CONTROL AND INFORMATION POST FOR ALPINE MOTORING CONTEST
IMPORTANT MOUNTAINS PASS
CABLE CAR OR CHAIRLIFT

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PAINTING BY H. C. BERANN · INNSBRUCK · AUSTRIA

Real and imaginary - the pictorial maps of Carol Mendel

23 **MENDEL, Carol; Gaston LOKVIG; Janetmarie COLBY; and others**

The comprehensive archive: from original artwork to first publication and beyond.

Publication
San Diego, Carol Mendel, 1976 - 2003.

Description
Visitors Maps: 'San Diego Visitors Map' (1976) - a folder of original artwork (pen and ink, and felt pen, on paper and transparent overlays) for front and reverse of the map, including the main map (San Diego County Map), and the vignette maps (Mission Bay, Old Town, Balboa Park) on the reverse; a folder of camera ready art; a folder of colour separations; a folder of printer's proofs; 3 examples of the first printing of the main map (unfolded); a folder of miscellaneous sheets of revisions for the 1987, 1989, 1998, in various formats; a complete set of folding published maps. 'Los Angeles & Orange County Visitors Map' (1989) - a folder of original artwork (pen and ink, and felt pen, on paper and transparent overlays) for front and reverse of the map, including the main map (Los Angeles), and the vignette maps (Griffith Park, Downtown Los Angeles, Southern Orange County, Exposition Park) on the reverse; a complete set of folding published maps; 'San Francisco Bay Area' (1991) - a folder of original artwork (c500 sketches, pen and ink on paper mounted in groups on card, transparent overlays); a complete set of folding published maps; a complete set of folding published maps, including every issue of every other map by Mendel created by digital printing processes. Books: 'San Diego by Bike & Car' (1973) - a folder of original artwork (pen and ink on paper); a folder of printer's layouts annotated by Mendel; a complete set of published books; 'San Diego on Foot' (1973) - a folder of original artwork (pen and ink on paper); a folder of printer's layouts, annotated by Mendel; a complete set of published books; 'San Diego Coloring Book' (1975) - small format: a folder of original artwork (pen and ink, and felt pen on paper); a folder of page proofs; the published book; 'San Diego Coloring Book' (1985) - large format: a folder of page proofs; the published book. Source Material - USGS maps (c35) - folding colour printed maps with a direct bearing on the information in the Mendel 'Vistors Maps'.

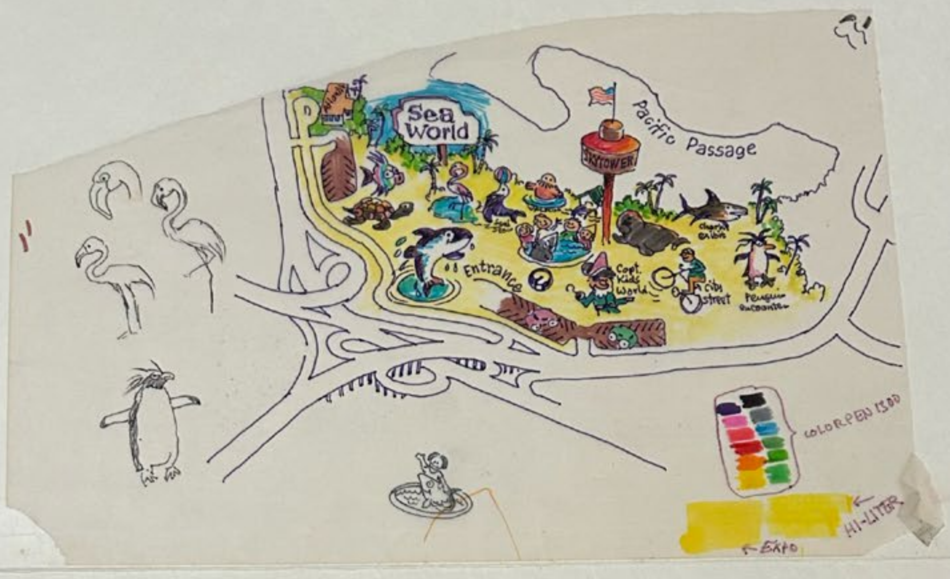
Carol Mendel, has been a highly successful lady cartographer of the San Diego area for 50 years. Her first, best known, and most successful pictorial map 'San Diego Visitors Map' was first published in 1976, and has been updated frequently to 2003. At the peak of her career, in the late 1980s, Mendel was selling just shy of 80,000 visitors maps of Californian destinations a year. Her map of Los Angeles is notorious, having played a prominent part in the first (and best) of the 'Speed' (1994) films, when it literally took a front row seat, and provided the backdrop for Sandra Bullock as she grabbed the wheel of the runaway bus.

Mendel's Visitors maps are both practical and whimsical: usefully showing major roads, and popular destinations; and illustrated throughout with detailed vignettes of places and people by local artists, Gaston Lokvig and Janetmarie Colby. However, some personal landmarks have been added, such as "Chuck's Point", near Bird Rock,La Jolla, named for her son, who used to surf there as a young man and boy. Stretching the truth often extends to the entire map, as the legends on Mendel's maps state: "This map is not to scale. Metropolitan San Diego is greatly expanded to show its many important roads. Mileages are shown to popular county destinations. They are measured from downtown San Diego, at the intersection of Interstate highway 5, and California highway 94". In all of Mendel's maps, one side of the sheet is a large-scale general map of the whole area, and the verso, a series of vignette maps, highlighting local hotspots.

The Mendel archive is comprehensive, and includes all of the material from which she created her Visitors maps, and guide books: source material, original artwork, working proofs, from all aspects of what was once a very hands-on and labour intensive process. Together with every issue of every map and book, the archive provides a unique record of a niche aspect of printing history.

Mendel published her first guidebook to San Diego 'San Diego by Bike & Car' in 1973. Two books later ('San Diego on Foot' (1973), and the 'San Diego Colouring Book' (1975), Mendel decided to emulate her pictorial carto-graphic hero, Jo Mora, and produce a 'Visitors Map to San Diego'. Those books, this map, and her subsequent two maps, of Los Angeles and San Francisco, were published before the dominance of digital reproduction, and this archive retains the artifacts, of this now obsolete process, for those maps. Mendel's later maps (Santa Barbara, Palm Springs, Washington DC, Salt Lake City, Las Vegas, California, and Oregon) were all created digitally, and so, as a direct consequence, while there are published versions of each issue of these maps in the archive, they have not left the same archaeological imprint.

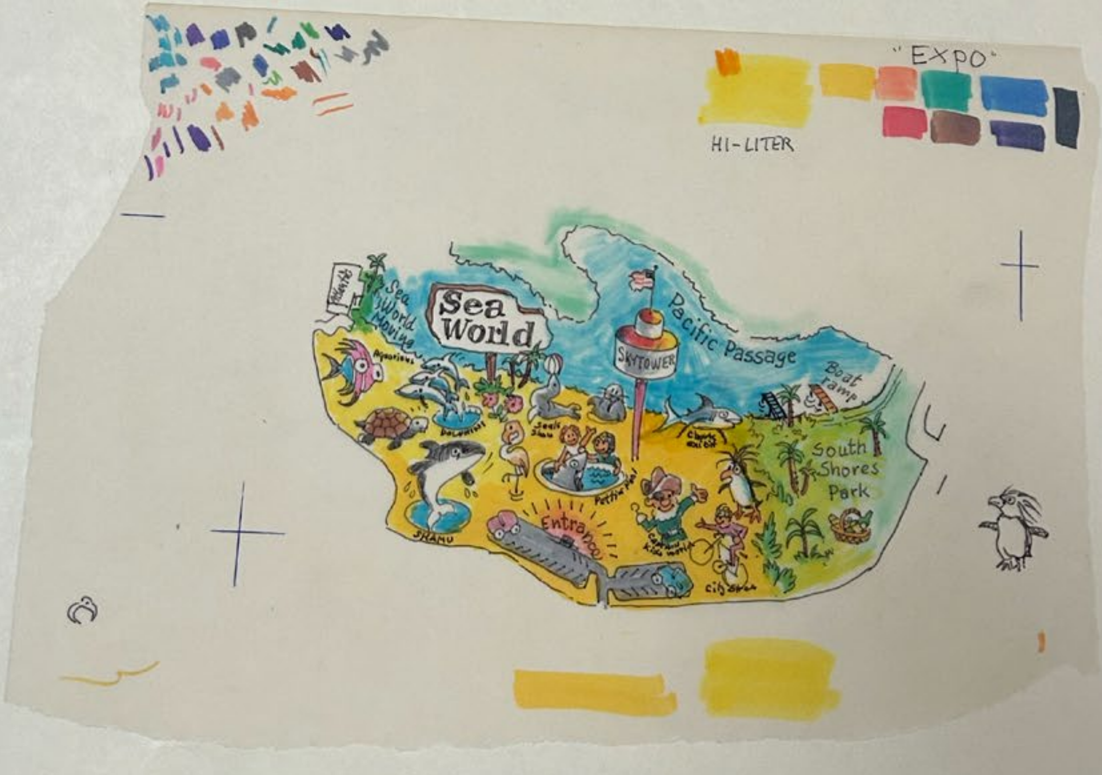
Additionally, the archive includes the source material for Mendel's maps: about 30 USGS maps, with a direct bearing on the content of Mendel's maps.


Sea World
Pacific Passage
SKYTOWER
Seal Show
Shark encounter
Entrance
Capt. Kids World
City Street
Penguin encounter

COLORPEN 1300

HI-LITER

← EXPO


Sea World
Sea World Moving
Aquarium
Dolphins
Seals Show
Pacific Passage
SKYTOWER
Boat ramp
Shark exhibit
South Shores Park
SHAMU
Entrance
Petting Pool
Captain Kids World
City Street

"EXPO"

HI-LITER

The mapmakers, in Mendel's own words:

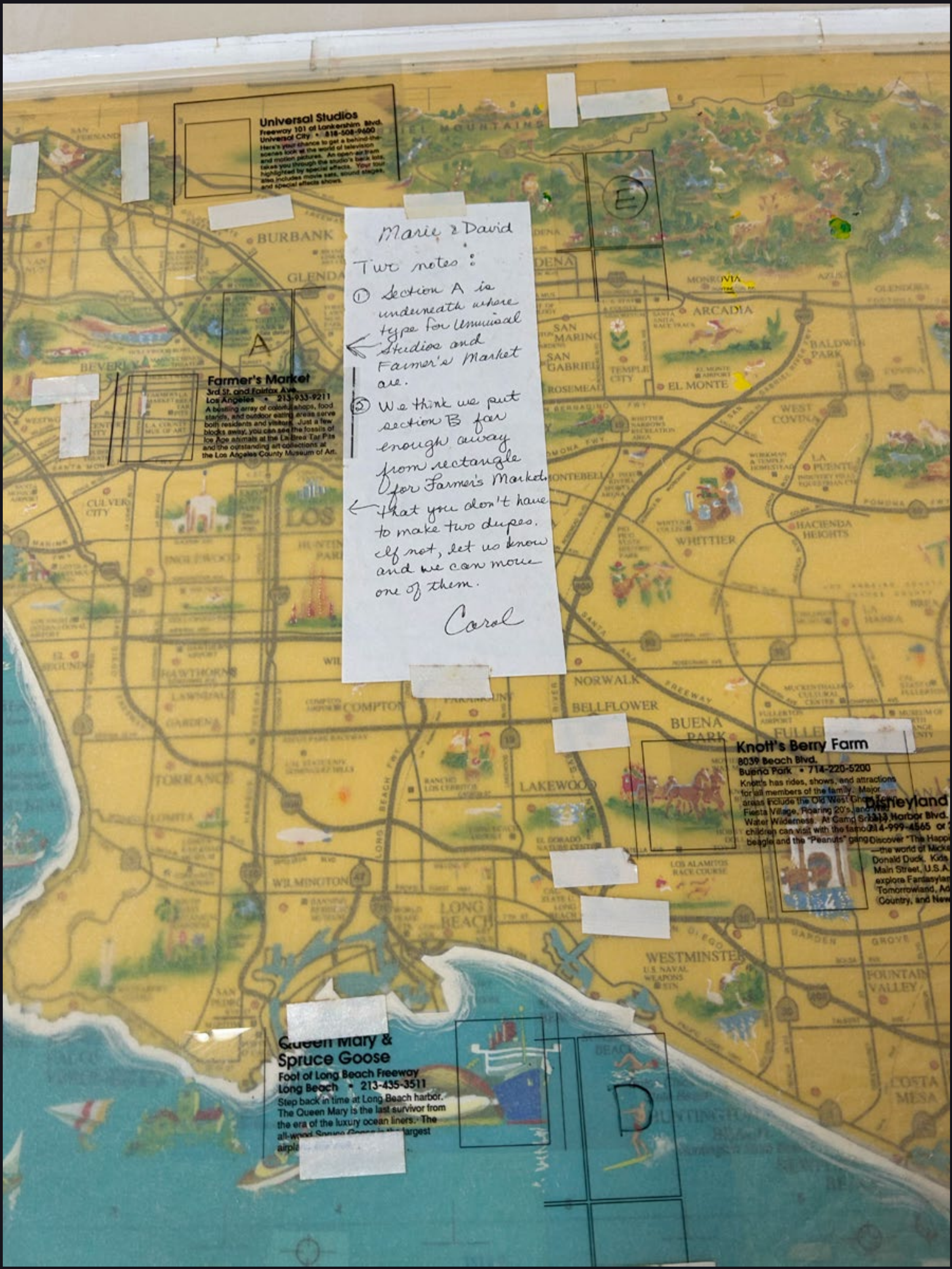
Carol Mendel
"In 1970, my husband and I took a copy of the book 'Turn Right at the Fountain', by George Oakes, along with us on a trip to Europe. The walking tours in that book were the highlight of our trip, and inspired me to produce a book of walking tours for San Diego, my home town. The success of that book led me to develop a variety of other products about San Diego, including the 'San Diego Visitor's Map' (1976), which featured pictorial maps of the San Diego area.

Gaston Lokvig – illustrator for 'San Diego' and 'Los Angeles'
I first met Gaston in 1973, when I was looking for illustrations for my book of walking tours. Born in 1912 and a native of Denmark, he began his career at some of the largest printing companies in Copenhagen. Soon he was working for one of Denmark's leading magazines, illustrating children's books, and drawing film posters for major movie studios. In 1959, Gaston and his family moved to Southern California. His love of pen-and-ink illustrations led him to make dozens of drawings of San Diego landmarks. Many of those drawings were perfect for the San Diego-focused products I published.

Gaston eventually retired, and moved to Santa Fe, New Mexico. He passed away in 2009, at age 96. His charming illustrations can still be seen in the illustrated maps of the San Diego, Los Angeles, and Orange County areas.

Janetmarie Colby – illustrator for 'San Francisco'
Janetmarie is the illustrator for my maps of the San Francisco Bay Area, Santa Barbara, Palm Springs, Sacramento, Portland, Las Vegas, Salt Lake City, Washington, D.C., and the states of California, Oregon, and Utah.

When my husband and I moved to San Diego in 1965, Janetmarie was one of the first friends we made here. Our friendship has now lasted for more than 40 years. Over the years, she has worked for advertising agencies and publishing companies, created illustrations for San Diego's major newspaper, worked freelance, and taught art to children's classes. In 1990, we decided to combine business with our friendship, as she took on the project of illustrating my maps of the San Francisco Bay Area. The collaboration worked well, and led to her creating the illustrations for the maps of many other areas".


A
E
D
BURBANK
GLENDALE
ARCADIA
SAN MARINO
SAN GABRIEL
TEMPLE CITY
EL MONTE
BALDWIN PARK
WEST COVINA
WHITTIER
NORWALK
BELLFLOWER
BUENA PARK
LAKEWOOD
TORRANCE
WILMINGTON
LONG BEACH
WESTMINSTER
GARDEN GROVE
FOUNTAIN VALLEY
COSTA MESA
CULVER CITY
INGLEWOOD
HAWTHORNE
GARDENA
COMPTON

Universal Studios
Freeway 101 at Lankershim Blvd.
Universal City • 818-508-9600
Here's your chance to get a behind-the-scenes look at the world of television and motion pictures. An open-air tram takes you through the studio's back lots, highlighted by special effects. Your tour also includes movie sets, sound stages, and special effects shows.

Farmer's Market
3rd St. and Fairfax Ave.
Los Angeles • 213-933-9211
A bustling array of colorful shops, food stands, and outdoor eating areas serve both residents and visitors. Just a few blocks away, you can see the fossils of Ice Age animals at the La Brea Tar Pits and the outstanding art collections at the Los Angeles County Museum of Art.

Marie & David

Two notes:

① Section A is underneath where type for Universal Studios and Farmer's Market are.

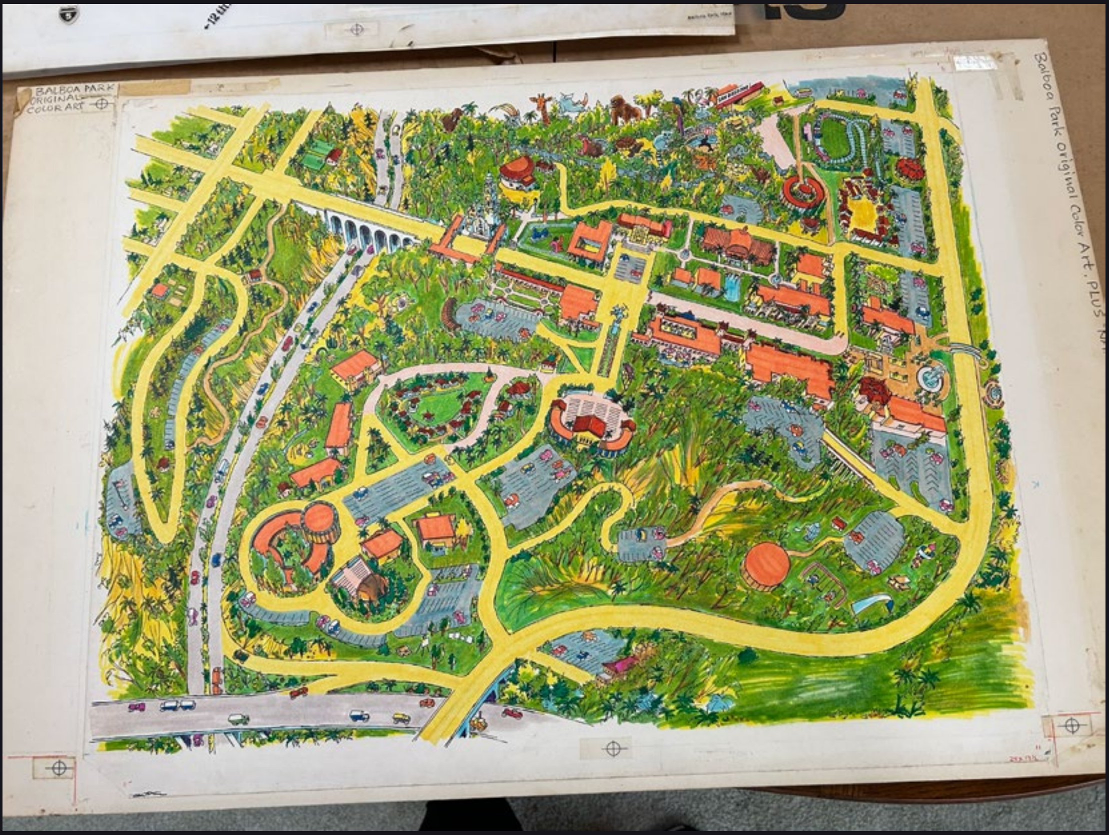
② We think we put section B far enough away from rectangle for Farmer's Market that you don't have to make two dupes. If not, let us know and we can move one of them.

Carol

Knott's Berry Farm
8039 Beach Blvd.
Buena Park • 714-220-5200
Knott's has rides, shows, and attractions for all members of the family. Major areas include the Old West Ghost Town, Fiesta Village, Roaring 20's, and Wild Water Wilderness. At Camp Snoopy, children can visit with the famous beagle and the "Peanuts" gang.

Disneyland
1313 Harbor Blvd.
714-999-4565 or
Discover "The Happi
—the world of Micke
Donald Duck. Kids
Main Street, U.S.A.
explore Fantasylan
Tomorrowland, Ad
Country, and New

Queen Mary & Spruce Goose
Foot of Long Beach Freeway
Long Beach • 213-435-3511
Step back in time at Long Beach harbor. The Queen Mary is the last survivor from the era of the luxury ocean liners. The all-wood Spruce Goose is the largest airpla [illegible]


BALBOA PARK
ORIGINAL
COLOR ART
Balboa Park original Color Art. PLUS

Do not use for reference only
DO NOT LIFT HERE. LIFT AT CORNERS.
PACIFIC OCEAN
MANHATTAN BEACH
HERMOSA BEACH
REDONDO BEACH
TORRANCE
PALOS VERDES ESTATES
RANCHO PALOS VERDES
LONG BEACH
LAKEWOOD
ANAHEIM
ORANGE
GARDEN GROVE
SANTA ANA
WESTMINSTER
HUNTINGTON BEACH
FOUNTAIN VALLEY
COSTA MESA
NEWPORT BEACH
IRVINE
SEAL BEACH
SUNSET BEACH
BURBANK
GLENDALE
PASADENA
ARCADIA
SAN MARINO
SAN GABRIEL
ALHAMBRA
MONTEREY PARK
EL MONTE
TEMPLE CITY
BALDWIN PARK
WEST COVINA
COVINA
LA PUENTE
GLENDORA
WHITTIER
PICO RIVERA
DIAMOND BAR

ANZA BORREGO
DESERT
STATE
PARK
Legend
SAN DIEGO
San Diego County

ANZA BORREGO
Legend
PACIFIC OCEAN
SAN DIEGO
SAN DIEGO BAY
San Diego County
BAJA CALIFORNIA
MEXICO

Foundation map of Silicon Valley - inscribed by the artist

24 HOBURG, Maryanne Regal

Silicon Valley.

Publication
Fremont, City Graphics of America, P.O. Box 261, Fremont, California, 94537, Price $3.95 1982.

Description
Colour printed pictorial map.

Dimensions
390 by 510mm (15.25 by 20 inches).

References
See Rumsey 11492, for published issue.

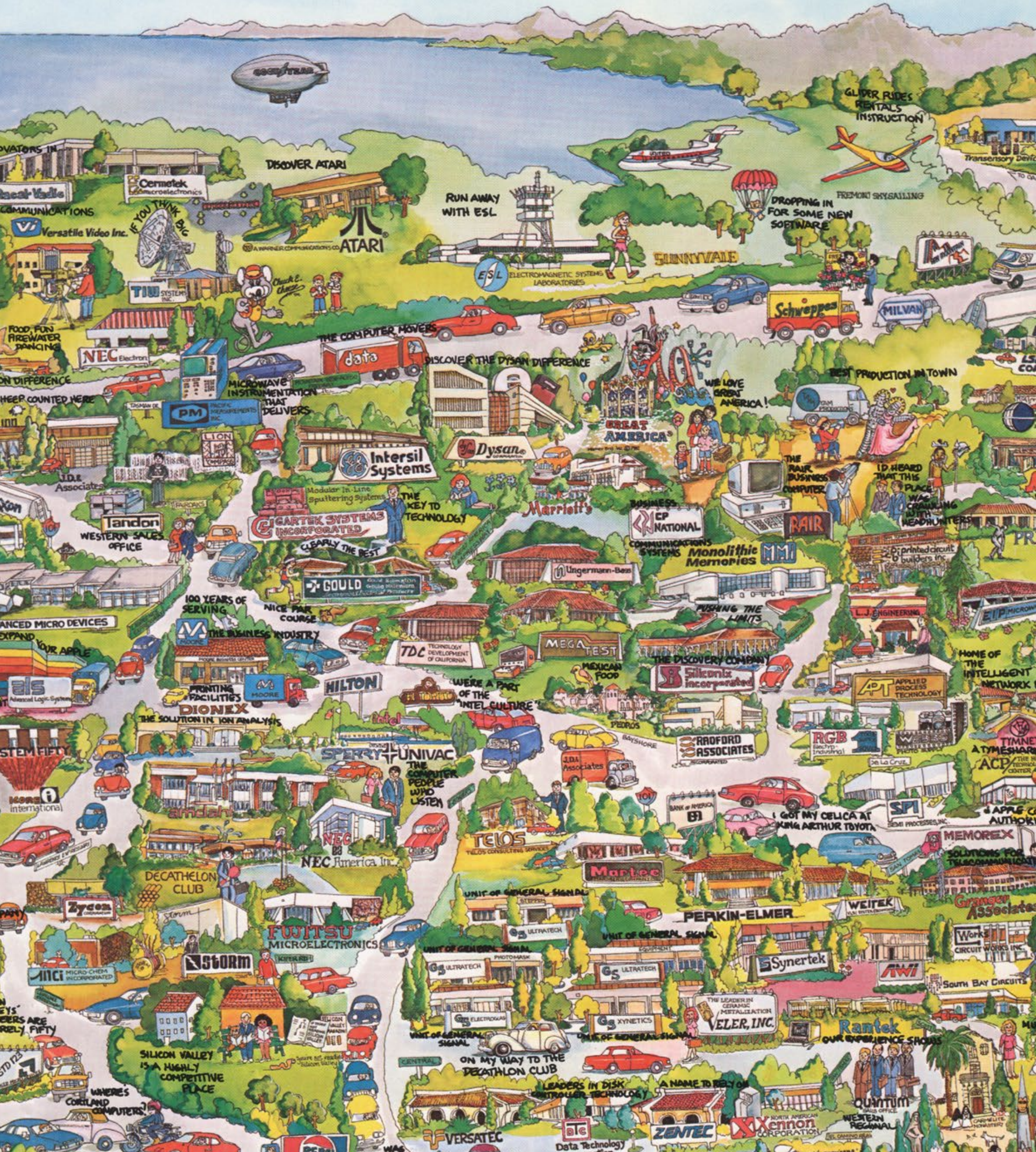
First issue, pre-publication state, of this first map of Silicon Valley, inscribed by the artist. With "Decathelon" Club misspelled, which is ironic, given that it is spelled correctly in at least two other places on the map: a teacher near the center of the lower edge asks her pupils "to spell decathlon"; and the track where "Bruce Jenner trained for the decathlon" is shown. The latter is one of the many suggested captions for the published issue, present in this map in a form of overprinting. In this printing the zip code is given as 94537.

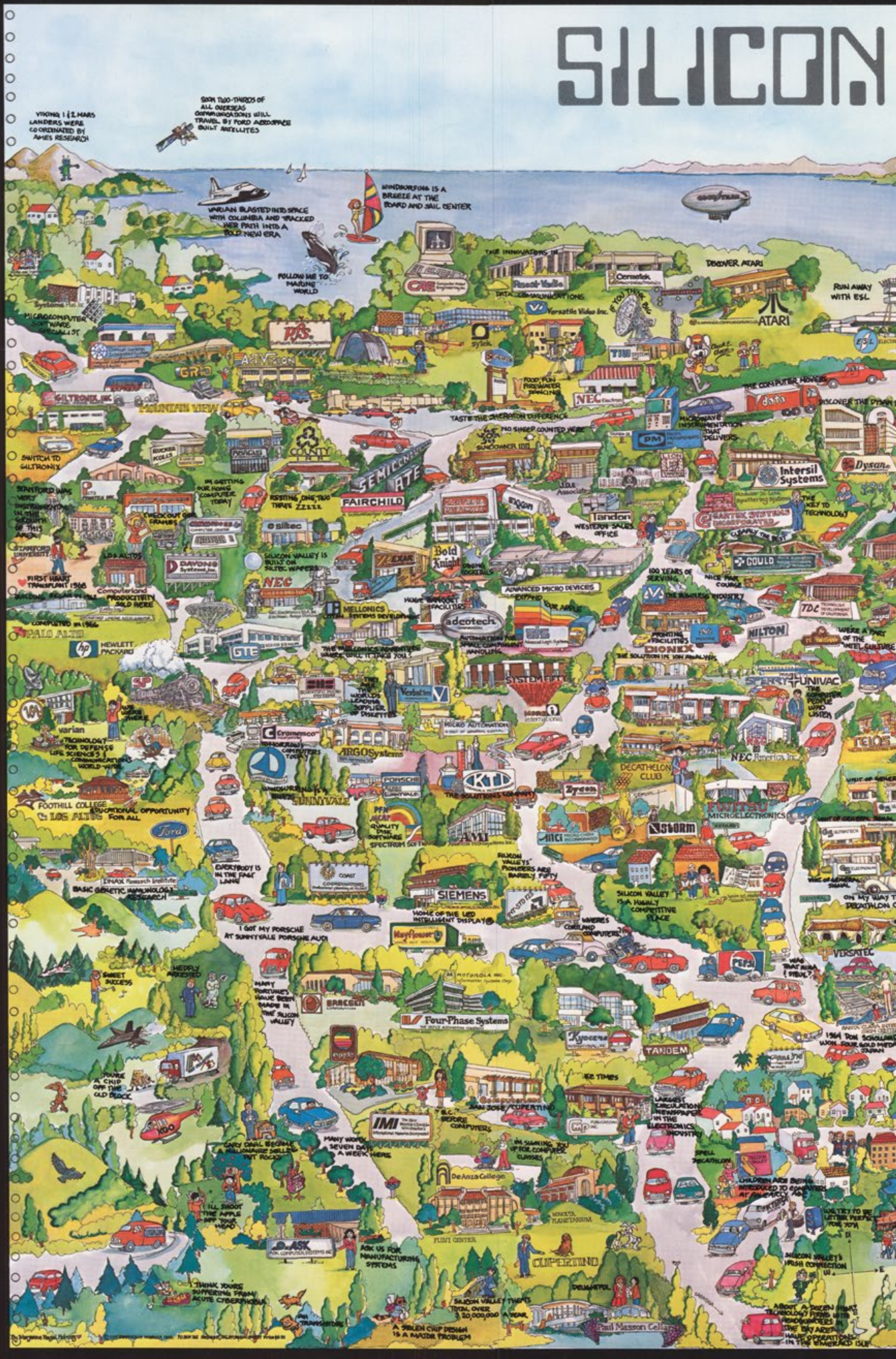
Hoburg famously took her camera, drove around the burgeoning community of technical companies, sketched what she saw, and created what would be recognised as the foundation map of Silicon Valley: providing a fascinating snapshot into the early days of the tech boom in California, and the map is filled with the logos and buildings of software and computer companies. Some of the companies shown have survived, and are now household names: IBM, Toshiba, and Hewlett Packard. At the lower edge is the distinctive original rainbow logo of what is arguably now the most famous software company in the world, Apple. The map also shows some of the victims of the failure of the market. Atari, at the upper right, would fold in 1984, following the recession in the video game industry in North America. VisiCorp, in the centre, suffered ongoing legal battles, and is now owned by Paladin. For the companies in the map, however, the risks were worth it to be at the cutting edge of technology.

The map was produced by a small graphic design company, City Graphics of America, who offered local businesses a place on the map for a fee. They would then simplify the urban landscape to make room for the names of the businesses and comic illustrations. The next issue, dated 1983 and printed on the same scale as the current map, not surprisingly includes many more businesses.

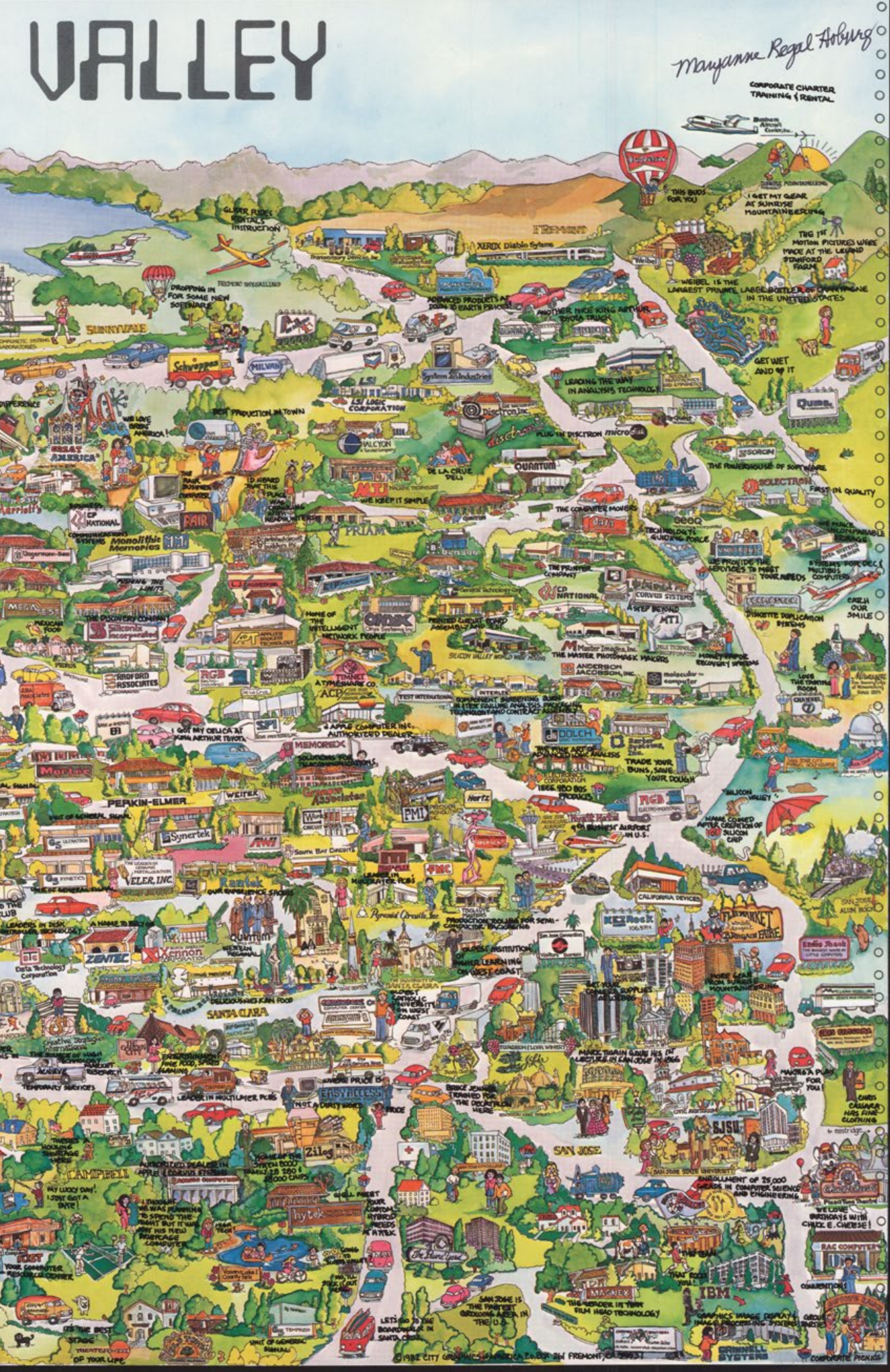
We know of no other example of this proof state of the map. The David Rumsey Map Collection includes an example of the published version, and a later edition on a larger scale.

SILICON VALLEY


GOODYEAR
GLIDER RIDES
RENTALS
INSTRUCTION
Transensory Devi
DISCOVER ATARI
Cermetek microelectronics
RUN AWAY WITH ESL
FREMONT SKYSAILING
DROPPING IN FOR SOME NEW SOFTWARE
COMMUNICATIONS
Versatile Video Inc.
IF YOU THINK BIG
ATARI
A WARNER COMMUNICATIONS CO.
ESL ELECTROMAGNETIC SYSTEMS LABORATORIES
SUNNYVALE
Chuck E. Cheese
TIW SYSTEMS INC.
Schweppes
MILVAN
FOOD, FUN FIREWATER DANCING
THE COMPUTER MOVERS
data
NEC Electron
DISCOVER THE DYSAN DIFFERENCE
MICROWAVE INSTRUMENTATION THAT DELIVERS
WE LOVE GREAT AMERICA!
BEST PRODUCTION IN TOWN
SHEEP COUNTED HERE
PM PACIFIC MEASUREMENTS INC
GREAT AMERICA
LION
Intersil Systems
Dysan
J.D.E. Associates
Modular In-Line Sputtering Systems
THE KEY TO TECHNOLOGY
THE RAIR BUSINESS COMPUTER
I'D HEARD THAT THIS PLACE WAS CRAWLING WITH HEADHUNTERS
Tandon
WESTERN SALES OFFICE
CARTEK SYSTEMS INCORPORATED
CLEARLY THE BEST
Marriott's
BUSINESS
CP NATIONAL
COMMUNICATIONS SYSTEMS
RAIR
Monolithic Memories
MMI
printed circuit builders inc.
GOULD
Ungermann-Bass
100 YEARS OF SERVING
NICE PAR COURSE
THE BUSINESS INDUSTRY
PUSHING THE LIMITS
L.J. ENGINEERING
ADVANCED MICRO DEVICES
EXPAND YOUR APPLE
MOORE
TDC TECHNOLOGY DEVELOPMENT OF CALIFORNIA
MEGA TEST
THE DISCOVERY COMPANY
MEXICAN FOOD
HOME OF THE INTELLIGENT NETWORK
Advanced Logic Systems
PRINTING FACILITIES
HILTON
WE'RE A PART OF THE "INTEL CULTURE"
Siliconix incorporated
APT APPLIED PROCESS TECHNOLOGY
DIONEX
THE SOLUTION IN ION ANALYSIS
intel
PEDRO'S
BAYSHORE
RADFORD ASSOCIATES
RGB Electro-Industrial
TYMNET
A TYMESHARE
ACP
SYSTEM FIFTY
SPERRY UNIVAC
THE COMPUTER PEOPLE WHO LISTEN
J.D.E. Associates
De La Cruz
MORE international
amdahl
BANK OF AMERICA
I GOT MY CELICA AT KING ARTHUR TOYOTA
SPI SEMI PROCESSES, INC.
APPLE AUTHORI
NEC
NEC America Inc.
TELOS
TELOS CONSULTING SERVICES
MEMOREX
SOLUTIONS FOR TELECOMMUNICATI
DECATHELON CLUB
Martec
SAN TOMAS
Zycon
UNIT OF GENERAL SIGNAL
PERKIN-ELMER
WEITEK
Granger Associates
FUJITSU MICROELECTRONICS
ULTRATECH
UNIT OF GENERAL SIGNAL
Works CIRCUIT WORKS INC.
STORM
UNIT OF GENERAL SIGNAL
PHOTOMASK
ULTRATECH
ULTRATECH
Synertek
AWI
MICRO CHEM INCORPORATED
SOUTH BAY CIRCUITS
THE LEADER IN CERAMIC METALIZATION
VELER, INC.
ELECTROGLAS
XYNETICS
UNIT OF GENERAL SIGNAL
UNIT OF GENERAL SIGNAL
Rantek
OUR EXPERIENCE SHOWS
SILICON VALLEY IS A HIGHLY COMPETITIVE PLACE
CENTRAL
ON MY WAY TO THE DECATHLON CLUB
LEADERS IN DISK CONTROLLER TECHNOLOGY
A NAME TO RELY ON
WHERE'S CORTLAND COMPUTERS?
QUANTUM
WESTERN REGIONAL
VERSATEC
DTC Data Technology
ZENTEC
NORTH AMERICAN Xennon CORPORATION


SILICON
VIKING 1 & 2 MARS LANDERS WERE COORDINATED BY AMES RESEARCH
SOON TWO-THIRDS OF ALL OVERSEAS COMMUNICATIONS WILL TRAVEL BY FORD AEROSPACE BUILT SATELLITES
VARIAN BLASTED INTO SPACE WITH COLUMBIA AND TRACKED HER PATH INTO A BOLD NEW ERA
WINDSURFING IS A BREEZE AT THE BOARD AND SAIL CENTER
FOLLOW ME TO MARINE WORLD
THE INNOVATORS
DATA COMMUNICATIONS
Versatile Video Inc.
DISCOVER ATARI
ATARI
RUN AWAY WITH ESL
MICROCOMPUTER SOFTWARE SPECIALIST
GRID
SILTRONIX
MOUNTAIN VIEW
SWITCH TO SILTRONIX
FOOD FUN FIREWATER DANCING
NEC
TASTE THE SHERATON DIFFERENCE
NO SHEEP COUNTED HERE
THE COMPUTER MOVERS
MICROWAVE INSTRUMENTATION THAT DELIVERS
DISCOVER THE DYSAN
Intersil Systems
Dysan
STANFORD WAS VERY INSTRUMENTAL IN THE GROWTH OF THIS AREA
STANFORD UNIVERSITY
I'M GETTING MY HOME COMPUTER TODAY
CHECKOUT OUR GAMES
RESTING ONE TWO THREE ZZZZZ
SEMICONDUCTOR
FAIRCHILD
Siltec
Exxon
Tandon
WESTERN SALES OFFICE
THE KEY TO TECHNOLOGY
GOULD
LOS ALTOS
FIRST HEART TRANSPLANT 1968
ComputerLand
PRODUCTIVITY SOLD HERE
COMPLETED IN 1966
PALO ALTO
SILICON VALLEY IS BUILT ON SILTEC WAFERS
NEC
Bold Knight
ADVANCED MICRO DEVICES
100 YEARS OF SERVING THE BUSINESS INDUSTRY
NICE PAR COURSE
TDC
MELLONICS SYSTEMS DEVELOPMENT
adcotech
HEWLETT PACKARD
GTE
MILTON
WERE A PART OF THE INTEL CULTURE
DIONEX
THE SOLUTION IN ION ANALYSIS
SYSTEM FIFTY
SPERRY UNIVAC
THE COMPUTER PEOPLE WHO LISTEN
varian
TECHNOLOGY FOR DEFENSE LIFE SCIENCES COMMUNICATIONS WORLD-WIDE
THE WORLD'S LEADING SUPPLIER OF DISKETTES
Verbatim
MICRO AUTOMATION
Cromemco
ARGOS Systems
NEC America, Inc.
DECATHELON CLUB
FOOTHILL COLLEGE
EDUCATIONAL OPPORTUNITY FOR ALL
LOS ALTOS
Ford
SUNNYVALE
PORSCHE
KTI
THE SOLUTIONS COMPANY
FUJITSU MICROELECTRONICS
Storm
AMI
DNAX Research Institute
BASIC GENETIC IMMUNOLOGICAL RESEARCH
EVERYBODY IS IN THE FAST LANE
QUALITY DISK SOFTWARE
SPECTRUM
SILICON VALLEY'S PIONEERS ARE BARELY FIFTY
SIEMENS
HOME OF THE LED INTELLIGENT DISPLAY
SILICON VALLEY IS A HIGHLY COMPETITIVE PLACE
WHERE'S CORVUS AND COMPUTERS
ON MY WAY TO DECATHALON
I GOT MY PORSCHE AT SUNNYVALE PORSCHE AUDI
Mayflower
VERSATEC
SWEET SUCCESS
MEDFLY ARRESTED
MANY FORTUNES HAVE BEEN MADE IN THE SILICON VALLEY
MOTOROLA INC.
Four-Phase Systems
Kyocera
TANDEM
1964 TOM SCHOLLANDER WON FOUR GOLD MEDALS IN JAPAN
YOU'RE A CHIP OFF THE OLD BLOCK
KGO
EE TIMES
LARGEST CIRCULATION NEWSPAPER IN THE ELECTRONICS INDUSTRY
SAN JOSE/CUPERTINO
IMI
B.C. BEFORE COMPUTERS
MANY WORK SEVEN DAYS A WEEK HERE
GARY DAHL BECAME A MILLIONAIRE SELLING PET ROCKS
I'M SIGNING UP FOR COMPUTER CLASSES
SPELL DECATHLON
CHILDREN ARE BEING INTRODUCED TO COMPUTERS AT AN EARLY AGE
DeAnza College
MINOLTA PLANETARIUM
FLINT CENTER
I'LL SHOOT THE APPLE OFF YOUR HEAD
ASK
ASK COMPUTER SYSTEMS INC
ASK US FOR MANUFACTURING SYSTEMS
CUPERTINO
WE TRY TO BE LETTER PERFECT FOR YOU
SILICON VALLEY'S IRISH CONNECTION
I THINK YOURE SUFFERING FROM ACUTE CYBERPHOBIA
AH TRANSISTORS!
SILICON VALLEY EVENTS TOTAL OVER 20,000,000 A YEAR
A STOLEN CHIP DESIGN IS A MAJOR PROBLEM
Paul Masson Cellars
ABOUT A DOZEN HIGH TECHNOLOGY FIRMS WITH HEADQUARTERS IN THE BAY AREA HAVE OPERATIONS IN THE EMERALD ISLE
By Marganne Regal Halewey

VALLEY


Maryanne Regal Hoburg
CORPORATE CHARTER
TRAINING & RENTAL
THIS BUDS FOR YOU
I GET MY GEAR AT SUNRISE MOUNTAINEERING
THE 1st MOTION PICTURES WERE MADE AT THE LELAND STANFORD FARM
FREMONT
XEROX Diablo Systems
Weibel
WEIBEL IS THE LARGEST PRIVATE LABEL BOTTLER OF CHAMPAGNE IN THE UNITED STATES
GET WET AND ♥ IT
GLIDER RIDES RENTALS INSTRUCTION
idi
Transistory Devices, Inc
DROPPING IN FOR SOME NEW SOFTWARE
SUNNYVALE
ADVANCED PRODUCTS AT DOWN TO EARTH PRICES!
ANOTHER NICE KING ARTHUR TOYOTA TRUCK
Schweppes
MILVAN
System Industries
LSI
LSI LOGIC CORPORATION
LEADING THE WAY IN ANALYSIS TECHNOLOGY
Qume
Disctron Inc.
disctron
PLUG IN DISCTRON micro
BEST PRODUCTION IN TOWN
WE LOVE GREAT AMERICA!
GREAT AMERICA
HALCYON
DE LA CRUZ DELI
QUANTUM
SORCIM
THE POWERHOUSE OF SOFTWARE
SELECTRON
FIRST IN QUALITY
Marriott's
BUSINESS CP NATIONAL COMMUNICATIONS SYSTEMS
THE FAIR BUSINESS COMPUTER
FAIR
I'D HEARD THAT THIS PLACE WAS CRAWLING WITH HEADHUNTERS
MJI
WE KEEP IT SIMPLE
THE COMPUTER MOVERS
seeq
TECHNOLOGY'S GUIDING FORCE
WE MAKE INCOMPARABLE STORAGE
PRIAM
Monolithic Memories
MMI
Ungermann-Bass
PUSHING THE LIMITS
WE PROVIDE THE SERVICES TO MEET YOUR NEEDS
SYSTEMS FOR DEC & MULTIBUS COMPUTERS
THE PRINTER COMPANY
CP NATIONAL
CORVUS SYSTEMS
A STEP BEYOND
MTI
DISKETTE DUPLICATION SYSTEMS
CATCH OUR SMILE
MEGATEST
THE DISCOVERY COMPANY
Siliconix Incorporated
MEXICAN FOOD
HOME OF THE INTELLIGENT NETWORK PEOPLE
ONYX
APPLIED PROCESS TECHNOLOGY
PRINTED CIRCUIT BOARD ASSEMBLY AND TEST
SILICON VALLEY WORLD WIDE MOVING
Master Images, Inc.
THE MASTER PHOTOMASK MAKERS
MONEY VAPOR RECOVERY SYSTEMS
ANDERSON JACOBSON, INC.
molecular computer
LOVE THE TASTING ROOM
RADFORD ASSOCIATES
RGB
TYMNET
A TYMESHARE CO.
ACP
TEST INTERNATIONAL
INTERLEK
COMPONENT SCREENING BURN-IN TEST FAILURE ANALYSIS PACKAGING TECHNOLOGY AND CONTRACT ASSEMBLY
CHANNEL 7
I GOT MY CELICA AT KING ARTHUR TOYOTA
SPI
APPLE COMPUTER INC. AUTHORIZED DEALER
DOLCH
THE FINE ART OF ADVANCED LOGIC ANALYSIS
Barker Systems, Inc.
TRADE YOUR BUNS, SAVE YOUR DOUGH
MEMOREX
SOLUTIONS FOR TELECOMMUNICATIONS
IEEE 980 BUS PRODUCTS
Mortec
PERKIN-ELMER
WEITEK
Associates
Hertz
PMI
HGB
ELECTRO-INDUSTRIAL
Hyatt Hotel
9th BUSIEST AIRPORT IN U.S.
"SILICON VALLEY" NAME COINED AFTER CREATION OF SILICON CHIP
UNIT OF GENERAL SIGNAL
Synertek
AMI
SOUTH BAY CIRCUITS
GS ULTRATECH
GS SYNETICS
VELER, INC.
Rantek
OUR EXPERIENCE SHOWS
LEADER IN MULTILAYER PCBS
FMC
CALIFORNIA DEVICES
SAN JOSE ALUM ROCK
LEADERS IN DISK CONTROLLER TECHNOLOGY
A NAME TO RELY ON
QUANTUM
Pyramid Circuits, Inc.
PRODUCTION TOOLING FOR SEMI-CONDUCTOR PACKAGING
OLDEST INSTITUTION OF HIGHER LEARNING ON WEST COAST
KEZ Rock 106.5FM
FLEA MARKET BARGAIN FAIRE
Radio Shack
DTC
Data Technology Corporation
ZENTEC
Xcnnon CORPORATION
WESTERN REGIONAL
DELICIOUS HICKORY FOOD
SANTA CLARA
OLDEST CATHOLIC UNIVERSITY ON WEST COAST
GET YOUR CAMERA SUPPLIES
MORE GEAR FROM SUNRISE MOUNTAINEERING
Creative Strategies International
THE SOURCE OF HIGH TECHNOLOGY MARKET RESEARCH
THE GARDEN CITY
ENTERTAINMENT FINE FOOD, SPIRITS DANCING
ACHIEVE
TEMPORARY SERVICES
LEADER IN MULTILAYER PCBS
WHERE PRICE IS NOT A DIRTY WORD
EASY ACCESS
PRICE
MARK TWAIN GAVE HIS 1st LECTURE IN SAN JOSE IN 1866
BRUCE JENNER TRAINED FOR THE DECATHLON HERE
MAKING A PLAY FOR YOU!
CHRIS CASSARA HAS FINE CLOTHING
THERE'S A HOUSING SHORTAGE HERE
CAMPBELL
AUTHORIZED DEALER IN APPLE & CORVUS SYSTEMS
Zilog
HOME OF THE SYSTEM 8000 FAMILY Z8 Z80 & Z8000 CHIPS
MY LUCKY DAY! I JUST GOT A BYTE!
I THOUGHT HE WAS PLANNING TO SPEND THE NIGHT BUT IT WAS JUST HIS NEW MORTGAGE COMPUTER
HIGH TECH!
hytek
WE'LL MEET YOUR CUSTOM HYBRID NEEDS AT HYTEK
GOING TO SILICON VALLEY?
SAN JOSE
SJSU
SAN JOSE STATE UNIVERSITY
ENROLLMENT OF 25,000 GRADS IN COMPUTER SCIENCE AND ENGINEERING
WE LOVE BIRTHDAYS WITH CHUCK E. CHEESE!
RAC COMPUTERS
THE TEAM THAT ROCKS YOU!
IBM
GRAPHICS IMAGE DISPLAY & IMAGE PROCESSING SYSTEMS
GRINNELL SYSTEMS
CONVENTIONS
GROUP PARTIES
CORPORATE PICNICS
MAGNEX
THE LEADER IN THIN FILM HEAD TECHNOLOGY
SAN JOSE IS THE FASTEST GROWING AREA IN THE U.S.
LET'S GO TO THE BOARDWALK IN SANTA CRUZ
YOUR COMPUTER RESOURCE CENTER
IT'S THE BEST STAGE OF YOUR LIFE
UNIT OF GENERAL SIGNAL

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The cradle of the computer industry

25 **HOBURG, Maryanne Regal**

Silicon Valley Courtesy of EATON Addington Yig-Tek.

Publication
Fremont, City Graphics of America, P.O. Box 261, Fremont, Calif. 94538, 1983.

Description
Colour printed pictorial map.

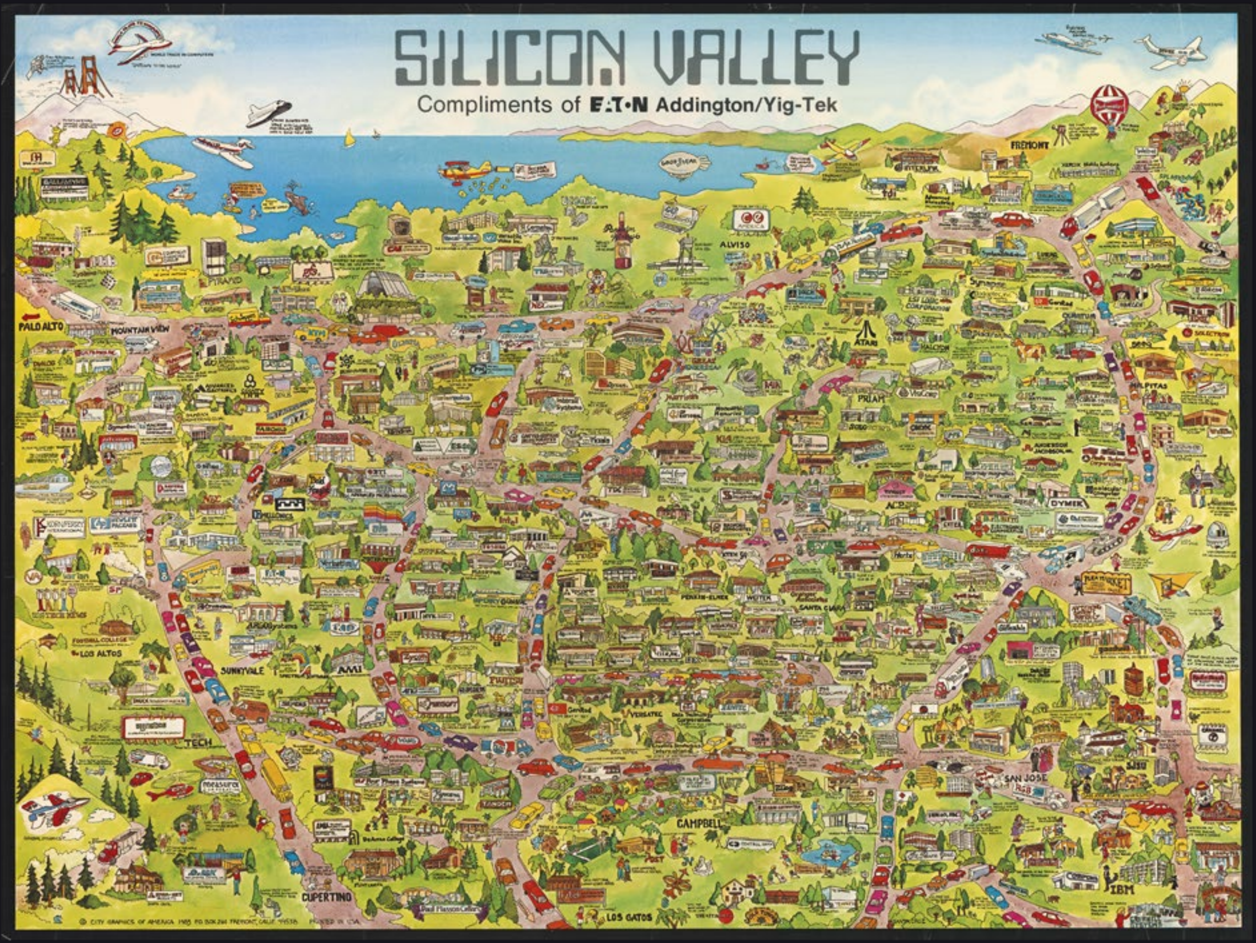
Dimensions
760 by 1010mm (30 by 39.75 inches).

A charming map of Silicon Valley, providing a fascinating snapshot into the early days of the tech boom in California. The map is filled with the logos and buildings of software and computer companies. Some of the companies shown have survived, and are now household names: IBM, Toshiba, and Hewlett Packard, which is accompanied by one disk saying to another "You must be a floppy disk!". At the lower edge is the distinctive original rainbow logo of what is arguably now the most famous software company in the world, Apple. Just above the Apple building, one computer attempts to chat up another with the line "You must be a smart terminal"! Underneath Fujitsu, a man tries to restrain his dog, assuring the other dog that "His byte is worse than his bark". The map also shows some of the victims of the failure of the market. Atari, at the upper right, would fold the year after the map was made following the recession in the video game industry in North America. VisiCorp, in the centre, suffered ongoing legal battles, and is now owned by Paladin. For the companies in the map, however, the risks were worth it to be at the cutting edge of technology: a little caveman at the lower edge is labelled "B.C., Before Computers!".

The map is also an affectionate record of life in Silicon Valley outside of the tech bubble, filled with facts, local legends and attractions. The importance of the two major universities, Stanford and Santa Clara, in innovations and education is emphasised: Stanford was where the first heart transplant took place in 1968 and the University of Santa Clara was the oldest Catholic university on the west coast. There are several prominent vineyards, including one that "serves the White House". Gary Dahl, the man who became a millionaire by selling 1.5 million 'Pet Rocks' for four dollars each, is shown with one on a lead below Measurex. And the local Chuck E. Cheese (their headquarters is at the top of the map) is labelled as a great place to have a birthday.

The map was produced by a small graphic design company, City Graphics of America. City Graphics would produce fun pictorial maps and ask businesses to buy a place on the map. They would then simplify the urban landscape to make room for the names of the businesses and comic illustrations.

We have only been able to trace one institutional copy in the Computer History Museum, California, and no other copies offered for sale. The California copy is subtitled "Courtesy of ELXSI" rather than "Courtesy of EATON Addington Yig-Tek", suggesting that companies paid to have different versions of the map with their names attached. In this printing of the map the zip code appears as 94538; earlier examples appear with the zip code as 94537.


SILICON VALLEY
Compliments of EATON Addington/Yig-Tek
PALO ALTO
MOUNTAIN VIEW
ALVISO
FREMONT
ATARI
PRIAM
MILPITAS
DYMEK
PERKIN-ELMER
SANTA CLARA
VERSATEC
SUNNYVALE
AMI
FOOTHILL COLLEGE
LOS ALTOS
TECH
CUPERTINO
Paul Masson Cellars
CAMPBELL
LOS GATOS
SAN JOSE
SJSU
IBM
© CITY GRAPHICS OF AMERICA 1985 PO BOX 261 FREMONT, CALIF. 94538 PRINTED IN USA

Cisco's "Original Silicon Valley Map and Calendar"

26 **GATTO, Diane [for] Cisco Systems**

Silicon Valley '96.

Publication
San Jose, CA, Amen International Inc., 1995.

Description
Colour printed poster on glossy paper, with areas embossed in gold. Old fold at center, light wear to edges.

Dimensions
965 by 608mm. (38 by 24 inches).

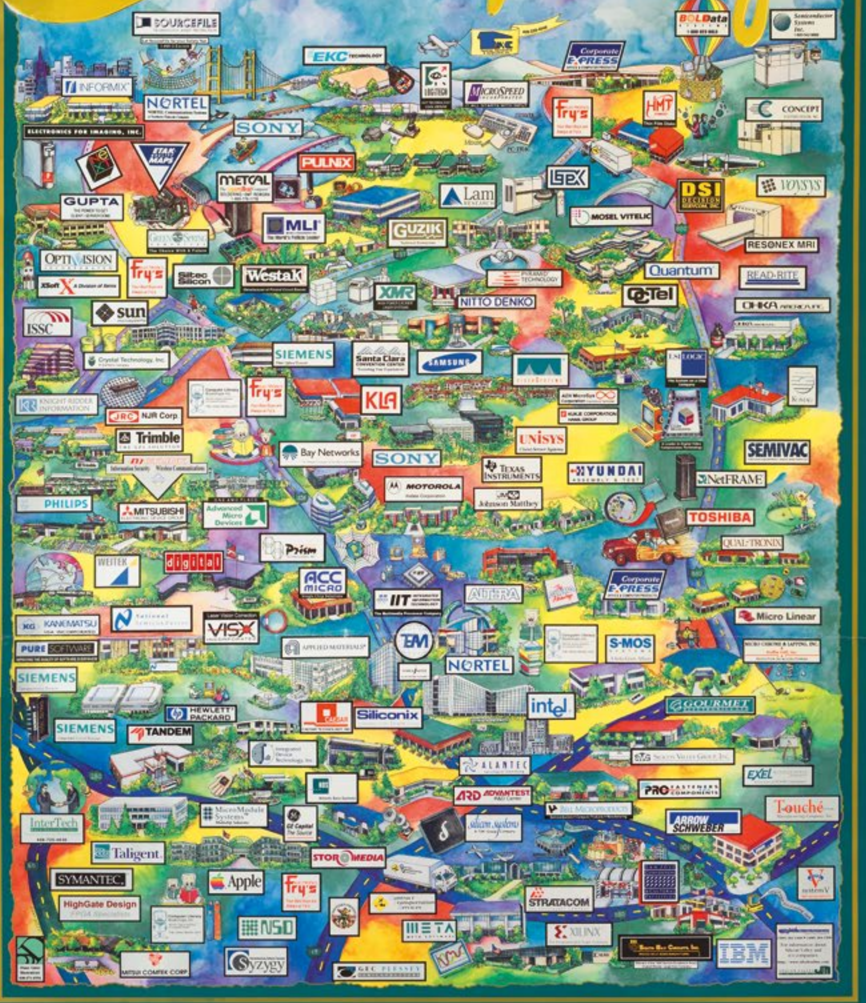
A colourful poster illustrated with a map of Silicon Valley, showing the locations of major technology companies and what their offices looked like.

Published in 1995, with a calendar for the following year, this map was made during a pivotal time in the technology industry, when commercial use of the internet started to become widespread. Consequently, 1995 was the beginning of a surge of internet startups, many of which followed their software predecessors to Silicon Valley. Cisco Systems, the company that commissioned this map, was one of Silicon Valley's companies that caught the internet wave at its crest.

Cisco was founded in 1984 by Sandy Lerner and Leonard Bosack. The company's name is derived from nearby San Francisco, and their logo represents the Golden Gate Bridge. The company's first product was a close adaptation of the Stanford computer network's router, copying both its software and hardware, that they called Cisco IOS. It was released in 1986, but not without Stanford contemplating filing charges. The problem was resolved in 1987, when Cisco agreed to lease the relevant intellectual property. Cisco systems went public in 1990, at which point the founders walked away. The company's success during the 90's lay in their production of the first commercially successful network router. This allowed for great advances in corporate communications - for example, a company's headquarters could connect seamlessly with its far-flung branch offices. In 1995, John Chambers became the CEO of Cisco Systems, and he ushered the company into its heyday. Among other products, Cisco held a de facto monopoly on the GSR router, which was vital to internet service providers. Cisco's control of this critical segment of the internet industry allowed them, in March 2000, to surpass Microsoft as the most valuable company in the world, with a market capitalisation of over 500 billion dollars. However, Cisco was trading at around 240 times its earnings, and their overly high valuation was not sustainable. When the dot-com bubble burst in 2001, Cisco's valuation plunged, becoming a cautionary tale for all of Silicon Valley. However, Cisco survived the crash, and the company is still active today.

We have been unable to locate a copy of this poster an institutional collection.

'96 Silicon Valley


SOURCEFILE
EKC TECHNOLOGY
Corporate Express
BOLData
Semiconductor Systems Inc.
INFORMIX
NORTEL
LOGITECH
MICROSPEED
Fry's
HMT
CONCEPT
ELECTRONICS FOR IMAGING, INC.
SONY
ETAK DIGITAL MAPS
PULNIX
METCAL
GUPTA
MLI
Lam Research
LTX
DSI DECISION
VOYSYS
GUZIK
MOSEL VITELIC
RESONEX MRI
GREEN SPRING
OPTIVISION
Fry's
Siltec Silicon
Westak
XMR
PYRAMID TECHNOLOGY
Quantum
READ-RITE
XSoft A Division of Xerox
ISSC
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NITTO DENKO
OCTel
OHKA AMERICA
SIEMENS
Santa Clara Convention Center
SAMSUNG
LSI LOGIC
Crystal Technology, Inc.
Fry's
KLA
KNIGHT-RIDDER INFORMATION
NJR Corp
UNISYS
Trimble
Information Security Wireless Communications
Bay Networks
SONY
SEMIVAC
TEXAS INSTRUMENTS
HYUNDAI ASSEMBLY & TEST
NetFRAME
PHILIPS
MITSUBISHI
Advanced Micro Devices
MOTOROLA
Johnson Matthey
TOSHIBA
Prism
QUAL-TRONIX
WEITEK
digital
ACC MICRO
ALTERA
Corporate Express
IIT
Micro Linear
KANEMATSU
National Semiconductor
VISX
PURE SOFTWARE
APPLIED MATERIALS
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HEWLETT PACKARD
TANDEM
Siliconix
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ALANTEC
Silicon Valley Group, Inc.
EXEL
ARD ADVANTEST
PRO FASTENERS COMPONENTS
InterTech
MicroModule Systems
GE Capital
Bell Microproducts
silicon systems
ARROW SCHWEBER
Touché
Taligent
STOR MEDIA
SYMANTEC
Apple
Fry's
STRATACOM
HighGate Design FPGA Specialists
NSD
META
XILINX
IBM
MITSUI COMTEK CORP
Syzygy
GEC PLESSEY

CISCO SYSTEMS

Corporate Headquarters: 170 W. Tasman Drive, San Jose, California, 95134 ● Tel:(408)526-4000 ● (408)526-4100 ● URL: http://www.cisco.com

January

S	M	T	W	T	F	S
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February

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September

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December

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22	23	24	25	26	27	28
29	30	31				

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